MODERN BUSINESS

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MAR 19 1931

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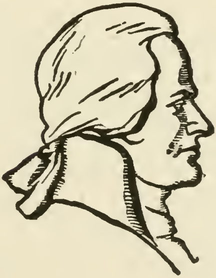
Modern Business

A SERIES OF TEXTS PREPARED AS
PART OF THE MODERN BUSINESS
COURSE AND SERVICE OF THE
ALEXANDER HAMILTON
INSTITUTE



ALEXANDER HAMILTON INSTITUTE
NEW YORK

Modern Business

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OFFICE MANAGEMENT

BY

THE EDITORS

IN COLLABORATION WITH

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AND BERNARD LICHTENBERG

MODERN BUSINESS

VOLUME 19

ALEXANDER HAMILTON INSTITUTE
NEW YORK

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PREFACE

In the field of productive effort much has been gained of late years thru the analysis of accepted processes. Factories and machine shops have, as it were, been strewn with question marks and investigators with keen eyes and active brains, have taken to pieces and resolved into their several parts well established methods and processes. In fact it has seemed at times that the longer a process or operation had been established, the greater the ground for questioning it.

War has been declared on routine, at least the old routine. Out of this keen analysis of processes has grown modern factory management intent upon new things whenever they promised a gain in efficiency. Out of the old traditional routine built upon haphazard and custom, there is growing a new routine based on rational analysis and scientific planning.

This spirit of the times is more and more finding expression in the conduct of offices as well as factories. The office manager is a relatively new functionary. Unconsciously perhaps he is bringing to bear upon the problems of this work those principles which lie at the root of factory management, adapting them as he proceeds to the special conditions with which he has to deal.

Because he has been concerned with one question of detail after another, the office manager and the executive over him have been unconscious of the fact that there was behind these several problems, in embryo, at least, a science of office management. It is the purpose of the present Text to look upon the office problems as a whole, and sketch the outlines of this rapidly developing branch of organized business office.

In carrying out the plans of the Editors in the preparation of the Text, great assistance has been given by the collaborators, who have worked jointly and not concurrently. Under these circumstances, it would be difficult to enumerate their specific contributions to the Text, since they have added in some measure to all its parts.

THE EDITORS.

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OFFICE MANAGEMENT

CHAPTER I

THE OFFICE IN MODERN BUSINESS

1. *Modernity of the modern office.*—Many had tried and only partially succeeded in producing a typewriter when the first machine which became a successful commercial product was placed on the market in 1874. This indispensable tool of modern business is not, therefore, fifty years of age and many of the appliances which have followed in its train are still younger. It is difficult for us to picture a time when business records were written wholly by hand and when the only means of duplication available was the old-fashioned letter copy press, when incoming letters were filed away in boxes and paid bills were strung upon a wire like a catch of fish and hung on a nail. Yet those times are not very far behind us.

Visit a shoe factory in Lynn or Brockton and watch the innumerable processes carried on by countless machines to put a shoe on the market, and then conjure up in memory the old-time shoemaker of your boyhood's days who made shoes in a little outhouse with a few knives and awls, and you have a contrast which is no less striking than that which exists between the offices of some of our larger undertakings today and the offices in which our grandfathers began their business careers.

The output of the village shoemaker was shoes, and so is that of the great modern factory. Yet only in this are they alike; in their technical, their economic and their administrative problems, they are vastly different. The output of the modern office is office work as was that of the old-time office, but not only have mechanical processes changed, but with these changes have come new principles, new methods and new ideals in office management.

2. *Magnitude of the modern office.*—It is an interesting speculation how with the lack of appliances and facilities which characterized the offices of fifty years ago, they would have handled the work of today. There was, in fact, no occasion for such a volume of office work since business in all branches, manufacturing and mercantile, was conducted on a relatively small scale. Big businesses as we know them today did not exist, and few had passed beyond the stage where the competent manager whose office, in the familiar phrase, was under his hat, could not handle the business which came up, in a thoroly satisfactory manner. That we have grown beyond that stage of one-man management needs no demonstration.

Appliances add to complexity, and complexity adds to appliances. They go hand in hand. The complexity which comes from appliances is seeming only, it is the aspect in which these new-fangled notions are viewed by those who have been brought up in the old ways. In reality their functions are to add simplicity, directness and efficiency to the office work. If they do not do this and there are, of course, many inventions which, however ingenious, fail to meet this test, they are unsuccessful and find their way into the junk heap.

The complexity of business which produces appliances is the outgrowth of many forces, all of which tend toward larger business units. It is a common observation that the more frequently operations have to be repeated, the more attention is given them, and the more thought is expended in examining into the processes and seeking the means to improve them. The village storekeeper, for example, who writes an occasional letter puts the stamp on in the natural instinctive way. But give an office boy a hundred letters to stamp, and his taste for mucilage will pall; he will seek other than the instinctive method of moistening the stamp. Let the number of letters to be mailed mount up to hundreds and a mailing machine, tho its first cost may be considerable, may save not only time but money.

3. *Office workers.*—It would be a mistake to assume that the office problems are confined to consideration of appliances and processes. They concern also persons. Whatever progress may have been made in devising machines to do some of the office work, such machines are far from automatic. There are indus-

tries in which mechanical forces ingeniously directed do practically all the labor that is performed, requiring only a small number of persons to tend the machines. But such a consummation, whether to be wished or otherwise, has not been attained in office work nor is it likely to be.

Mechanical and technical progress has gone very far in many branches of industry, so far indeed that it seems to many manufacturers a negligible problem in their undertaking. It is the labor problem that keeps them awake at night. In offices, the labor problems do not assume the same form as in factories, but they are none the less present.

Machines are only a limited help, processes of much wider application, but machines and processes have to be put into operation thru persons. Yet the nature of the work involved, the education and capacities of the workers give to the various problems concerning the hiring of labor in offices rather a different twist from those which confront the factory manager.

The selection of proper persons for the work, the necessary supervision, and perhaps suitable training, the payment of compensation in such manner as to bring out the full possibilities of the workers, the stimulation of the workers and such general care for their welfare as is an appropriate part of business policy are problems of no small magnitude in the conduct of business offices.

4. *Practices.*—It is a frequent rule that practice precedes theory, that the latter is as it were distilled

from the consideration of what men habitually do. Of the great changes which have taken place in the management of business offices in the last generation there can be no doubt. They have been introduced successively, each on its own merits. Thus new ways of doing things make their appearance and gradually the entire office routine is changed. The men in charge of the office know why they make the changes. Those who succeed them accept the new methods as parts of standard procedure. It is only when a change in some process is under consideration that men realize that a particular principle is involved. They do not call it a principle, as they think in terms of time saving, labor saving, larger output, efficiency, and the like. But each of these is in reality a principle of management. Thus back of every change, of every innovation, there is some particular principle at work.

5. *Principles.*—Men practiced division of labor before they were aware of it as a principle. But when they recognized it as a principle they took a great step forward since it then passed from the realm of the particular to that of the general. The orderly combination of the principles underlying economic activity, something that had been going on in the world since "Adam delved and Eve span," resulted in the science of political economy or of economics as it is more frequently called today.

In the same way the patient analysis of office organization, procedure and methods yields us a body of principles which when combined in a systematic, orderly arrangement of these principles gives us the science of office management. It is the purpose of the present Text to unfold those principles and develop that science. We have to do then in the first instance with a variety of principles, later with their combination into a science.

6. *Science.*—There are always some who dispute the application of the word science to a comparatively new subject. Discussions as to what constitutes science and as to whether a certain body of knowledge deserves that title may be interesting exercises in dialectics, but they do not go far toward advancing the sum of human knowledge or power.

For present purposes it is sufficient to characterize science in the sense here used as a body of organized knowledge. It is clearly recognized that the various bodies of knowledge are in different stages of advancement. Some are in the formative stage, just emerging from a state of disorganization.

Obviously, the science of office management is in such a formative state. While it is in this condition, it will not have universal recognition. But just because it has not yet earned such recognition, the problem of presenting this knowledge in systematic, orderly form becomes of greater interest. Whatever the ultimate judgment of the reader, it must be recognized that in a field which has commonly been thought of as belonging purely to routine, there are important principles of organization and operation which if recognized lead to a mastery of the subject which can be gained in no other way.

7. *Building up the science.*—The presentation of any subject consists in a judicious admixture of precept and example, of principle and illustration. Few of us are so constituted that we can think wholly in abstractions; we need concrete illustrations to give them life. There are, however, certain fields of knowledge with which our contact is so familiar that we can conveniently start from the abstract and use the concrete merely as illustrations. In others, we must develop the principle out of the analysis of the facts themselves.

Because the science of office management is in the formative state, it belongs in the latter class. Hence the treatment of the subject in the present volume begins with the study of concrete facts, and develops principles as it proceeds. This course is followed partly because the facts are for the most part new, and partly because our experience is limited. Individual experience touches certain definite processes, but does not commonly embrace all the analogous ones. Therefore, in the early part of the Text the attempt is made to survey, classify and analyze the facts of office practice. In this analysis, the principles of office management are disclosed.

In the latter part of the Text, the standpoint is not that of special processes and special problems, but that of the office as a whole. There are important considerations of the unit as well as the parts which compose it.

8. *Principles are general.*—The practice from

which the principles set forth in the Text are drawn is, it will soon be observed by the attentive reader, that of the larger offices. The obvious reason for this is that in the larger offices the need for standardizing practice is felt earlier than in small ones, and principles rather than rule of thumb are more earnestly sought in them. Reform often takes root with those most advanced and works its way downward, whether in social, political or economic life. It has been because colleges and universities have recognized the problems of education, that most of the changes in elementary education have been introduced.

But it will at once be recognized that if the conclusions drawn from the practice of the large offices are in reality principles of office management, they must be true for all offices, great and small. They are just as significant for the small as for the large office. American business men are constantly building for the future, and there are few of them whose ideal of achievement is to remain small. This or that type of appliance may be too costly to install in a small office, but some day it may become necessary, and in the meantime the principle which makes it desirable in a larger office may be put to work in some other form.

After all the basic aim of the office is, as in every other department of business, the maximum output of effective work at the minimum cost. Given this aim, principles of efficiency are always to be followed even tho the magnitude of operations at any given time does not permit the attainment of the highest possible results.

REVIEW

What conditions have given rise to so many new and improved office appliances?

Do these appliances tend to take the place of persons in an office?

How could the offices of fifty years ago conduct their business without the appliances now considered absolutely essential?

What is meant by the "science of office management"?

Are the same principles of office management applicable to both large and small offices?

CHAPTER II

LOCATION, PLANNING AND LAYOUT OF THE OFFICE

1. *Principle of office location.*—That location is best for an office which permits its business to be best conducted. Different kinds of offices require different locations. Sometimes the location is determined by the convenience of customers; sometimes by the nearness of related trades or of passenger and freight stations, or the post office. Altho the location of a particular office must be determined by the special needs of that office it is possible to determine the general features of location best suited for the main types of office.

2. *Factory office.*—The factory office should be located in the factory building or adjacent to it. The factory office is established to contain the factory records and to provide accommodations for the factory officials. If office and production plant are separated by any considerable distance, waste motion and loss of time are inevitable.

3. *Producing office.*—If an office is used not only as a place to accommodate the directing officers and to keep the records of a business, but is also the place where the business itself is carried on, it should be lo-

cated, like any other business concern, in a place most convenient for that particular business. For instance, the mail-order office, other things being equal, should be near the post office. A printing office should ordinarily be located adjacent to the main business section of the city near the concerns that are constantly ordering blanks and forms. Banks, insurance companies and brokers' offices are usually found crowded together in the financial district, where they can conveniently do business with one another.

4. *Sales office.*—A sales office, when detached from the main office of a concern, should be located so as to meet the convenience of the largest possible number of buyers. Many concerns, doing a national business, find it necessary to have sales offices in such cities as New York or Chicago, and such offices generally carry stocks, or at least sample stocks. In lower Manhattan, certain districts are given over exclusively to the sale of brass goods, leather goods and white goods. This permits out-of-town buyers, who come to the buying center several times a year, to visit in a short time the sales offices, or show rooms as they are often called, of all representative manufacturers in that line. No large manufacturer can afford to be without representation in these districts. No manufacturer in these lines would think of locating his office anywhere else in New York.

5. *Shifting office centers.*—A certain shifting of the centers of location for selling offices can be observed in New York today. The travel center of the

country for out-of-town buyers is coming to be between the Thirty-fourth Street terminal of the Pennsylvania Railroad and the Forty-second Street terminal of the New York Central and the New Haven. In this area an increasing number of buildings arranged for sales offices are being erected. A striking example is the great new thirty-story structure on Forty-second Street near Sixth Avenue, belonging to the Bush Terminal Company. It is called the International Exhibit Building. The Bush Terminal Company has, in Brooklyn, an ideal location for light manufacturing and for the storage of stocks of goods to be shipped by any of the hundreds of rail and water routes which radiate from New York to all parts of the world. But the Bush Terminal buildings in South Brooklyn are too distant for out-of-town buyers to visit. Therefore, the company has constructed this new sales building, primarily to serve its Brooklyn tenants. The first three floors of this building accommodate a buyers' club, available for out-of-town buyers without any cost. The upper twenty-seven floors contain a great amount of floor space divided into sections of suitable size for patrons who desire a New York selling office. Most of these tenants also carry small stocks in their offices.

6. *Export office.*—The organization of a manufacturer's foreign business will determine whether or not he needs an export office. If he sells thru export commission houses, or ships from the interior direct to the foreign buyer, he merely employs forwarders

at the seaboard and needs no export office of his own. Export offices, for obvious reasons, must be located at the seaboard.

Most of the export offices of the country are maintained in New York because that city has the largest choice of ocean services. An export office located in New York is always able to get ocean rate quotations from other ports as well, and to have goods shipped from other ports by forwarders located there. New York export offices are, for the most part, located in the shipping district, adjacent to the offices of the railroads and the steamship companies.

7. *Standard location instructions.*—Some corporations are continually establishing new branch offices and issuing standard instructions for choosing a location suitable for branch offices. One such set of instructions issued for this purpose reads:

> The building should be one near the post office. Therefore, in looking for space, begin at the post office and hunt in circles around it until you locate suitable quarters. Avoid a building more than ten years old, or given over to any specialty unless it comes in our line. Seek a building tenanted principally by insurance agencies, architects, and lawyers. It is not necessary that we be in the largest or newest office building in the city, for it is often an advantage not to be in too large a building. Avoid buildings not given up wholly to offices.

8. *Type of building.*—High land values in big cities bring about the construction of tall buildings. As a general rule, if the proper situation of an office is in the locality of high buildings, it is undesirable to

be located in a low building in that locality. The latter location usually has little light and air, subjects the tenant to excessive noise and frequently to excessive dirt drifting in at the windows.

Of course the elevator service in a building should be considered. If that service is good, it is considered well to be above the seventh floor, and, if possible, above surrounding buildings. An outside cut-off view is preferable to an inside cut-off view. If one must be content with the latter, he should bear in mind the disadvantages of a location on the narrow court, such as the conditions of light and ventilation. As to the exposure of office rooms, an eastern exposure is best, a western exposure worst, because of the unpleasantness of the afternoon sun. For similar reasons, north is usually considered preferable to south.

9. *Size of office.*— The office should not only be large enough to accommodate the departments which it is to hold at present, but it should also be large enough to provide for future growth. In establishing an office, one should consider the office space that has been needed during the previous five years, and the rate of growth during that time. From these facts one can determine the amount of space that will probably be needed during the next five years. Office arrangements should be made so that there will be no need to move except for unforeseen reasons. There is an old saying, "Three removals is as bad as one fire." In every move of an office, there is a large

loss in equipment, made obsolete by new conditions, and in fixtures and improvements that must be left behind in the old location. Moreover, removal from the established place and a change in the established telephone number tends to put the concern out of touch with both buyers and sellers.

10. *Principle of office planning.*—It is rare that an organization has the opportunity of acquiring precisely the sort of office which it would choose. Most offices are in buildings constructed not to suit the demands of a particular business, but the ordinary requirements of any business.

If the office has been properly located and enough space obtained for all present requirements and probable future needs, the next step is to place the employes and the equipment in such a manner that the maximum of productive work is obtained with a minimum of human labor. In the case of offices which must attract and hold customers, such as banks and brokerage offices, a further object must be kept in view, namely, that of serving the pleasure and convenience of the customers.

This is the purpose of plan and layout. By plan is meant the division of the space into rooms, aisles, etc. By layout is meant the disposal of equipment within the space thus planned.

11. *Providing for mechanical and electrical equipment.*—There will be economy in the end if at the outset provision is made for certain types of mechanical equipment which are to be used in the office. If

the office is to occupy more than one floor, elevators, dumb-waiters, and chutes may be used for carrying parcels, records and messages. Overhead carriers and pneumatic tubes are sometimes used for such communications between departments on the same floor. Interdepartmental and outside telephone systems require extensive wiring. At least the main lines of the wiring can be laid at the outset of the office planning. So also with the wiring required for lighting and for operating the numerous electric office appliances that are used today.

When the home office of the Equitable Life was laid out, search was made for a system that would avoid the unsightly exposed wiring common in many offices. Finally, a conduit system was provided for wires, with ample provision for expansion and changing conditions. The principle is the same as that which is driving many cities, in planning their streets, to put all sub-surface piping and wiring in a single conduit gallery, so that additions, changes, connections and repairs can be made without tearing up the highways.

A flourishing export firm in this country constructed a marble home for itself and then found that no provision had been made for wiring. It had the alternative of putting up with exposed wiring or drilling thru the marble. It chose the latter, at great expense.

12. *Room plan of the office.*—How shall the office be planned? The habit of providing a private office

for every official is gradually passing. There are offices today where everybody, from the president down, is located in one great room. The higher officials are usually separated by railings from the general office. The advantages of such a system are obvious. Every one in the general office is under constant supervision of his superiors and his associates, and this prevents waste of time. With the whole office procedure thus in plain view, it is also easier to detect any waste motion in the passing of business thru the organization. Moreover, in an office of this sort there is a tendency to foster a democratic spirit and to create an *esprit de corps.*

On the other hand, executives who must think, plan, analyze reports, and so forth, find it difficult to do so in the noise and interruptions unavoidable in a general office. There are employes in every business whose work is such that it could not very well be done in a general office. An editorial writer, for example, cannot do his best work amid such distractions. There are certain kinds of business, and certain occasions in every business, which require private rooms for confidential purposes.

13. *Partitions.*—Private rooms can be provided either by means of permanent partitions reaching to the ceiling, or by means of temporary partitions, which need not be over eight feet high. The advantage of temporary partitions is that they may be shifted to suit any change in the office needs. The use of transparent glass does away with the main

objection against wooden partitions, namely, that they shut out light. A set of private offices on the exterior side of the building may condemn the general office to working by artificial light. Opaque glass partitions insure more privacy than transparent ones, yet allow the passage of a considerable amount of light.

14. *Savings in abolishing private offices.*—Along with the tendency to reduce the number of private offices and consolidate offices in the main room, there is a tendency to consolidate the clerical work and eliminate unnecessary duplications in stenographic assistance. An extreme example of what can sometimes be accomplished along these lines was related some time ago in the magazine *100%*.

> A well-known manager, in giving his experience in working out efficient plans in his new environment, stated some results which he accomplished along office efficiency lines which may be applicable to many another firm.
>
> The following are some of the things he found:
>
> Nineteen private offices inclosed with high partitions. Each private office with a private reception room (and these rooms all of a liberal size). Each private office with a private stenographer and a private office boy. Each was exquisitely furnished with desks, chairs, rugs and the usual office accessories—White Rock drinking water supplied.
>
> Sixty-eight lights, etc.
>
> Expensive wrapping paper for tying up old records.
>
> On the whole, a very lavish display and reckless use of space on a high rent base.
>
> This is what he accomplished:
>
> Took down practically all the partitions, making one large general office, which resulted in reducing the number

of stenographers from nineteen to three, the number of office boys from nineteen to five, and the electric lights from sixty-eight to twelve; put in filtered water instead of White Rock; replaced the expensive wrapping paper by cheaper paper which answered the purpose.

Whoever else must be allowed private offices, the office manager himself should generally be out in the open, located where he can exercise general supervision of those who are under him. It is, of course, possible to achieve the same object in an office set off by clear glass partitions which shut out noise without shutting off vision.

For making certain officers readily accessible to customers, private offices are now giving way to general offices. In modern banks, nearly all officials are thus located.

15. *Principles of layout.*—In determining the layout of desks, filing cases and other equipment, one rule must be kept in mind. The work must be allowed to flow thru the office, as far as possible, in a straight line. A great many offices are built about the handling of an order. In that case, the office should be so arranged that the mailing department which opens the order is adjacent to the credit department which decides whether the order shall be accepted. Adjacent to the credit department should be the sales department which acknowledges the order; next the order clerks who record it and make the duplicates which go to the accounting and shipping departments. This illustrates the principle to be followed. The

precise layout in any office can be determined only by an intensive study of the work to be done.

16. *Letting the work flow.*—To determine the efficiency of your present layout, take the floor plan, indicate on it the arrangement of desks and other equipment, then draw a dotted line showing the course of the work with which the office force is occupied. If it is found that the dotted line doubles back, crosses and recrosses, it is probable that the layout can be bettered. One good way is to take the floor plan and have small pieces of cardboard cut to represent the furniture pieces of the office. Shift these about until the desired arrangement is obtained. If time can be saved in the passage of an order thru the office, or if waste motion can be eliminated in the relations of one department with another, it may pay to go to the trouble and expense of removing partitions and making a complete rearrangement. With proper planning beforehand, changes of this kind can be made over-night, or changes can be made gradually so that only one department is incommoded at a time.

17. *Equipment and users.*—If we follow this principle of letting the work flow in a straight line, we shall see to it that those departments are placed adjacent to each other which have the most contact. We shall see to it that equipment is placed nearest to those who are actually using it. For example, in one instance a great improvement was made by taking the files of salesmen's correspondence out of the general file room and locating them in the sales department,

on another floor. It had been noted that this correspondence was used only by the sales manager and his assistants, and there had been a great amount of lost motion in lugging these folders to and from the general files. Nearly every concern is likely to find similar wastes in its own offices.

It is worth while to examine the office layout from time to time to see if it is still in harmony with the constantly changing conditions of the business.

18. *The principle of compactness.*—In the distribution of desks and other equipment, the two principles of compactness and roominess must be considered. Office space is valuable—especially in the larger cities. In an article in one of the issues of *System* magazine the owner of a retail clothing store thus described intensive utilization of space to provide an office in his store:

> We have to use every available inch of space. The main office occupies fifty-four square feet, and accommodates two desks, an adding machine, a typewriter, and two filing cabinets. The telephone rests on a shelf by itself. The typewriter occupies a shelf at a convenient height for operating. When not in use, the adding machine slides directly under the typewriter shelf, the two taking the space of one. Under the cashier's desk are shelves for filing books and storing the odds and ends of office equipment.
>
> My private office occupies a space nine by four and one-half feet in size. It accommodates two desks, two small safes, and a filing cabinet. Altho small, it makes a very convenient working place. I have arranged everything so that when I sit at my desk I can reach any file or book I want. On the wall to my right hand are two telephone books, and several books which contain advertising sug-

gestions. To my left is the filing cabinet, which contains the names on our mailing list.

The practice of marshalling cardboard slips representing equipment upon the office plan will often suggest means for more economical use of the space. By one firm it was found possible to put five office desks in the space which had formerly accommodated but four, thru the simple device of placing them obliquely to the aisle instead of facing it.

19. *The principle of roominess.*—Yet the economy of space can be carried so far that it may hinder efficient work. In general it may be true that the most efficient employes are those who are glued to their desks. But this is not to be taken literally. Sometimes they must move and when they do so they should not disturb others. A few general hints can be given, based upon experience, with regard to the space that must be allowed for workers. Each employe, including his desk, aisle and chair space, requires from one hundred to one hundred and twenty-five square feet. Aisles should be at least three feet wide. When employes work back to back, it is well to leave four feet between chairs. In front of a filing cabinet a space of five feet should be allowed, so that employes can pass even when the drawer is fully extended. The idea of compactness is to be pursued only up to the point where it is short of overcrowding.

20. *Ventilation.*— If the system of ventilation does not provide sufficient fresh air for those in the office, they tend to become languid, especially toward the

close of the day. The subject of ventilation is a technical one that need not be exhaustively considered here. There are numerous solutions. There are window ventilators that deflect the cold air upward. There are simple exhaust fans that draw out the stagnant air while fresh air finds its way in at the doors and windows. There are ventilating systems that pump in air from the outside, pass it over steam coils and send it into the room at a required temperature. The need and choice of ventilating systems will vary with the particular circumstances in each office. An expert should be consulted in dealing with the problem. Any ventilation system can be improved by the practice of opening windows before work begins in the morning, and during the noon hour.

Smoking is, of course, not allowed in the general office.

21. *Office temperature.*—Overheating the rooms is unsanitary and, what is equally important from the view-point of office efficiency, it is a hindrance to good work. The New York State Commission on Ventilation and the Chicago Commission on Ventilation have established, with scientific accuracy, that 68 degrees Fahrenheit is the temperature at which the best office work is done. In a test it was found that a group of men did 37 per cent better work on a certain job when the temperature was at 68 degrees than they did under otherwise exactly the same conditions at 86 degrees. A larger output at 68 degrees was attained not only by those who did typewriting, but also by those who

did mental multiplication. It was found that under conditions of abundant fresh air, the workers in a temperature of 68 degrees did more than 10 per cent more work than those in a temperature of 75 degrees. A temperature over 68 degrees tends to inefficiency and this tendency increases when the higher temperature is accompanied by a lack of fresh air. There is obviously the same reason for preventing the office from becoming too hot in the summer as there is in winter. Electric fans and various ventilating systems serve this purpose.

In one concern an office boy has been assigned the duty of going thru each room in the office every hour in order to make sure that the temperature is at 68 degrees. This boy shuts off or turns on more heat, or opens windows, as the condition of the room warrants.

22. *Drafts.*—A common danger in makeshift ventilation is the creation of drafts. The body should not be subjected to currents of air of a temperature lower than 60 degrees. An eastern mercantile concern has figured that each cold in its office force costs the company $24.00, directly or indirectly. Such colds are worth preventing. They can be created by too much ventilation in summer as well as in winter, as can be testified by those who have suffered from the injurious use of electric fans.

23. *Noise prevention.*—Every one realizes the difficulty of doing concentrated work in a noisy office. That, indeed, is one of the reasons why a large num-

ber of private offices still prevail. The segregation of noise-producing instruments within a closed-off part of the office often makes it possible to dispense with private offices. Not only a $10,000 a year manager but also a $15 a week clerk will do better work if he can be protected from distracting noise.

In large cities, protection from noise is obtained by the use of offices high above the ground. In those modern offices where artificial ventilating systems are constantly filling the room with fresh air of a prescribed temperature, it is not necessary to open windows and let in noise. Window strips help to keep noise out of closed windows. Noise originating within the office can be greatly reduced thru intelligent effort. Unnecessary moving about the office can be forbidden. Some degree of success in this respect has also been achieved by padding the walls and ceiling with material of sound-absorbing texture. Rubber rests can be put under typewriters and the floor covered with sound-deadening material. There are, in fact, noiseless typewriters. Every reduction of mechanical noises also tends to reduce unnecessary conversation between clerks.

24. *Lighting systems.*—Few offices today are lighted by gas. In such cases, an incandescent burner should always be used. Most offices are now lighted by electricity. There are three methods by which this light is made available for the workers: the direct, indirect, and semi-indirect. With the direct method we are all familiar. Semi-indirect light-

ing requires from forty to fifty per cent more current than direct lighting, while indirect lighting requires from fifty to seventy-five per cent more. That is the price paid for more pleasant and efficient conditions of work.

Semi-indirect lighting has increased faster than indirect. Many a person does not *feel* that he is getting sufficient light, if he does not see the source of it. Where an employe has such a feeling, there is often uneasiness and unrest that interferes with full attention to his work.

25. *Care of lights.*—A few general suggestions are worth keeping in mind, no matter what method of lighting is employed. Reflectors and lamps should be regularly cleaned. It will make a difference of 25 per cent in the amount of light obtained. So far as possible all cord connections for fixtures, fans and desk lights should be removed and supplanted by floor, base or wall outlets. A cobweb of hanging wires is unsightly, and the danger from fire thru short circuits is always present. Lamps should be turned off promptly when not required for use, and only so many lights should be used in the daytime as are absolutely necessary. Each department should receive a notice to that effect, and regular inspection should be made to see that these instructions are carried out.

26. *Drinking water.*—An adequate supply of pure, fresh drinking water in the office is as important as a supply of fresh air. Most people drink water at least five times each day. Where the city drinking water

is not absolutely safe, bottled water should be provided. In all cases, individual glasses or individual drinking cups should be supplied. It is important to have drinking places conveniently located among the working force. There is a loss if the employe must walk a long distance to get a drink. There is also a loss if the drinking facilities are so inadequate that there is crowding around them, for the crowding makes the employes waste time in conversation. Provide enough drinking water, close at hand to all, under conditions that forbid contamination.

Some concerns have found it profitable during the warm weather to have a boy pass around every half hour a rack filled with cups of water to supply the officers and the clerical force.

27. *Toilet facilities.*—The laws of many states specify the minimum supply of toilet facilities. For example: they may specify that there must be one wash bowl and one toilet seat to every twenty employes. This will ordinarily be found insufficient by those who wish to prevent overcrowding and waste of time. Moreover, the modern office manager wishes his employes to have the best facilities, not alone from altruistic reasons, but because it pays. Of nothing, perhaps, is this more true than the toilets. Adequate and decent toilet rooms, kept constantly neat, contribute as much as any other one thing to the contentment and morale of the working force.

28. *Dust and disorder.*—A disorderly dusty office is unsanitary. It also lowers the pride of the em-

ployes in their work and their efficiency. It results in soiled, untidy work being turned out. There is no substitute for regular cleaning and dusting of the office. Sometimes it is possible to stop the dust before it gets into the office. A new manager of a factory office found the clerks wearing thick cuff protectors; stenographers were constantly rubbing out finger prints and the bookkeeping department was kept busy cleaning up pages in the books. There was a great waste of supplies, particularly of papers, which were dusty and grimy from lying around. The office was situated over the boiler room from which soft coal dust drifted in at every delivery of coal, that is, every forty-eight hours. Fine mesh screens were installed over the windows and mitigated the evil until it was possible for the office to be moved to a cleaner place.

REVIEW

Name four types of offices and state what general considerations should be given each one in selecting a location for it.

Compare the advantages and disadvantages of one large office room for officials and employes with the plan of many private offices.

Determine, by some simple device, the efficiency of the layout of any office with which you are familiar.

Show how improved work will result from giving careful attention to details of light, heat, noise, etc.

CHAPTER III

OFFICE EQUIPMENT AND SUPPLIES

1. *Standardizing equipment.*—The principle of standardization should, as far as possible, be applied to all pieces of equipment in the office. Uniformity in material and design of desks, chairs, tables, filing equipment and bookcases is desirable, by reason of the better appearance and greater interchangeability of the articles.

2. *The modern desk.*—One important piece of office equipment is the modern desk. The type of desk construction has become more and more simple. Ornamentation is omitted in the attempt to increase efficiency and remove the opportunity for dust to accumulate. The older type of desk, boarded from the floor to the top, is giving way to the sanitary type which stands upon four legs. In cities like New York where rent is high and floor space valuable, the older type of desk with drawers to the floor is often favored on account of the extra room which it affords.

The quality of material in office equipment has steadily become better, for several reasons. In the first place, cheap office equipment does not last. Again, the appearance of the office and the impression which it makes upon customers is determined largely by the type of office equipment. Lastly, it is not to be doubted that the appearance of the office and the quality of the office equipment has a definite psychological effect upon the character of work done by the office employes.

The question of steel or wood is not so important in the case of desks as in that of filing cabinets, where safety of important records against fire is a prime consideration. Steel desks are not used to any great extent. The choice of mahogany or oak furniture is largely one of taste. Mahogany makes for elegance. The brighter shades of oak are better reflectors of light.

3. *The roll-top.*—The old roll-top desk is going out of use. Its pigeon holes were only too convenient places for stuffing papers that should have been placed in files. In the readiness with which the roll-top desk may be closed at night and made to present an appearance of order lurks a temptation not to finish the day's business and clear the desk each night.

In addition to its other disadvantages, the roll-top desk by reason of its high back deprives the office manager of an unobstructed view of the men under his supervision. It also shuts out a certain amount of light from the room.

4. *The "efficiency desk."*—The desk of a clerk or stenographer should have no more drawer room than is necessary to contain the necessary supplies. It should have no space for storing books that should be in the library, folders that should be in the files,

paper or envelops in excess of current needs. Many firms have evolved or adopted certain types of desks built along these lines. For example, the Equitable Life Assurance Society has what is called its "efficiency desk," which it thus describes:

> The Equitable Efficiency Desk is perhaps the last word in office furniture. It is fifty inches long by thirty inches wide, with linoleum top and aluminum shoe and bevel edge binding. It is of quartered oak construction, dull finish, containing three drawers, the center providing compartments for working materials such as clips, pins, elastic bands and pencils. The side drawers contain an adjustable compartment for letter paper, pads, and stock forms, set slantingly for compactness and accessibility.
>
> One of the advantages of the desk is that clerks cannot stow away in it papers which later will be overlooked. With it a clerk works with greater expedition, and there being no room for placing current work in the desk, the tendency to defer until tomorrow what can be done today is almost entirely eliminated.

The drawers in the "Equitable Efficiency Desk" are so narrow that the desk looks much like a table.

5. *Special-type desks.*—There are various special-type desks or "service desks." The commonest example is the typewriter desk. Where the typist also has clerical work to perform, the typewriter is fastened to a disappearing tray, the top closing and providing a smooth surface for writing. Where the typewriter is little used, a simple typewriter stand may take the place of a special-type desk.

For the sake of clerks who regularly have to handle large numbers of card records, the "tub" desk was introduced. The clerk sits between two "tubs," connected by a small writing surface. The tubs consist of parallel compartments containing index cards, address cards, ledger accounts (if the ledger accounts are kept on cards), etc. Any card in a group of over ten thousand is within arm's reach of the clerk. Over the top of these compartments are sliding panels, so that any compartment can immediately be uncovered. The covered compartments provide additional writing space.

6. *Light for desks.*—The lighting arrangements should give the desks ample daylight. The light should fall upon the desk from the side or the rear, the ideal being that it shall come over the left shoulder of the operator.

7. *Office tables.*—Office tables are used for a variety of purposes, such as sorting mail, carrying equipment and serving clerks who perform routine clerical tasks. They are also used at board or committee meetings. In the executive's office the table often serves as a place for storing or displaying books, maps or large papers, or as an overflow space upon which to work when his desk is full. If a visitor is seated by such a table, the executive can turn and talk to him without needlessly exposing confidential papers that may lie open upon his desk.

8. *Office chairs.*—It is evidently worth while to give some thought to the selection of chairs for employes, for in them they are working seven or eight hours

every day. Typists and stenographers should be supplied with the special chairs designed for them in which the height and the angle of the back are adjustable. In the case of chairs not adjustable, the use of leather cushions or foot stools often gives added comfort and promotes greater efficiency.

Many offices are without sufficient chairs, not only for visitors, but even for their employes. It is generally desirable to have a chair for each desk or table, even tho it be not continually occupied.

9. *Desk equipment.*—Certain features of modern desk equipment not in common use are worth mentioning.

Many executives have plate-glass tops which cover part or all of their desk surface. Beneath this top can be put charts, timetables, telephone numbers, engagement lists, and any other material that it is desirable to keep in view. The desk top may thus at the same time be made to serve as a visible tickler file and a working space. Glass tops are easy to keep clean and they look well.

Two work trays carry papers "In" and "Out" respectively; that is, work which the desk owner receives from someone else, and work which he has finished and which is ready for the office boy to take away.

No one who is doing more than routine tasks should be without a calendar and an engagement memorandum. The loose leaf calendar combines these features. Fountain pens are frequently supplied to clerks who have a great deal of writing to do; sometimes separate fountain pens for different colored inks. Observation indicates when this is desirable.

10. *Standardizing desk equipment.*—For those who are engaged in the same kind of work, both the surface of the desk and the arrangement and contents of the drawers can be standardized. The standardized drawer arrangement of the Equitable Efficiency Desk has already been described (page 31). One organization has standardized both the arrangement and the contents of the desk drawers in many of its departments. The following outline is taken from its departmental manual and shows how the Billing Department desks are planned:

Center drawer:
        Signal clips
        Rule
        Memo pads
        Pens
        Pencils
        Pins
        Eraser

Top right hand drawer:
    1st compartment:
        Cards for tomorrow's billing
        Daily reports and time sheets
    2nd compartment:
        Attorney report blanks
        Special draft blanks
    3rd compartment:
        Cards and memoranda for drafts and attorney reports
        Requisition slips

Second right hand drawer:
  1st compartment:
    Letter heads
    Statements
    Second request statements
  2nd compartment:
    Plain envelops

Lower right hand drawer:
  Department Manual
    Book of rules
    Personal things

Naturally, standardization of this type is only practicable where the departments are large enough and where the work itself is of a comparatively standardized and simple form.

If employes are left to themselves, each fits up his desk as he chooses. There must be some "one best way." That way should be found and standardized.

11. *The file drawer.*—There are a number of variations in the layout of desks, and one can obtain from standard manufacturers a desk to suit almost any need. A favorite arrangement for executives is to have a deep lower drawer, deep enough to carry a set of standard files, to hold confidential correspondence or the working material which the executive most frequently needs. By dropping suggestions and memoranda into a properly classified file of this sort, a man can accumulate a wealth of information on any subject about which he reads and thinks. The middle drawer of the desk is probably the least useful of all. To open it, the worker must push back his chair and

almost distort himself. For that reason the center drawer is frequently omitted in the modern desk.

12. *Orderly desks.*—The orderliness with which desks are kept, and especially the manner in which the day's work is cleaned up before the employe leaves, should be ascertained by frequent inspections. Such inspections will serve another purpose as well. It will often be found that a clerk—or an executive—does not keep "on top" of his work because too much work is given him. There are men who continually work under an overload of just this sort. There is always something being neglected or shoved aside, and the fault may not be with the man. Usually it is found that more and better work can be done if the desk or working table is cleared of incumbrances. The more orderly the desk is, inside and out, the easier is it to get at and dispatch whatever work may be on hand. "The busier the man the clearer the desk" is a saying the truth of which has been proved many times.

13. *Modern files.*—The old-fashioned, inaccessible cardboard file has been discarded, replaced by modern multiple-unit vertical filing drawers. The discarded cardboard boxes can often be used for transfer files, unless correspondence beyond a certain age is destroyed. In the selection of filing cases, care should be taken to choose durable units, capable of easy extension. Rarely does standardization bear more fruit, in the important matters of economy, and convenience, than in the case of filing equipment.

14. *Types of file equipment.*—If the filing equipment is in the same room with office furniture, regard for good appearance requires that the material of both should be the same. The relative advantages of wood and steel as material for filing cases are hotly disputed by manufacturers. Steel filing cases are not fireproof, tho they are probably better resisters of fire and therefore better preservers of documents thru a fire, than wooden cases. A modern refinement is a set of filing cases in a container that is asbestos-lined.

The various filing case units of each manufacturer have been so nearly interchangeable that today it is possible to purchase almost any desired combination of letter-file drawers, card-file drawers and card index drawers—provided the cards used are the standard sizes. Small desk card index trays are often an indispensable piece of equipment on an executive's desk. Such trays can also be purchased to fit any desk drawer.

15. *Bookcases.*—Because of the dust common in offices, books should be kept behind closed doors. An office library is usually built up from a small beginning; the need of bookcase space grows with the development of the library. Therefore the most suitable form of office bookcase is the multiple unit case, equipped with sliding glass doors to keep out dust. Sections can be added as rapidly as shelf space is needed. The sectional bookcases should be of the same material as the other office furniture.

16. *Office supplies.*—The term "office supplies" in-

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cludes primarily paper and printed forms; it also stands for the whole miscellany of office paraphernalia with exception of the larger items of office equipment and appliances already described. In an industrial concern, the business of purchasing is likely to be a separate department. The materials, when bought, are kept track of by an accurate stockkeeping system, assuring that enough—tho not too much—of supplies of all sorts are carried, and also that these supplies are economically distributed and used.

The same care is necessary in buying office supplies and caring for them as in the case of purchasing factory supplies. Both factory and office turn out a product which is a combination of labor and raw material (office forms, stationery, stamps, etc.). It is true that, in the case of the product of the office, labor has a much larger proportion and materials a much smaller one than in the case of the factory; nevertheless the difference is merely one of degree.

17. *Standardizing supplies.*—Standardization of supplies results in savings in the purchase price, just as in the case of equipment and office appliances. In a large office there is a perceptible advantage in standardizing even lead pencils and purchasing in bulk for the whole office. Clerks are likely to have individual preferences or prejudices with regard to pencils. All, except such special workers as draftsmen, can use the same type. So also in the matter of pen holders, ink wells, paper clips and numerous other items.

18. *Forms.*—It is frequently charged that many

concerns pay high prices to printers for forms which might be standardized, and bought at any large retail stationery store. The stationery houses already have standardized such forms as shipping receipts, receiving records, different kinds of vouchers, loose leaf forms, cards and ruled sheets. At the same time it is necessary to use caution in taking over whole sets of office forms put out by the so-called system manufacturers. It is seldom that a ready-made system can be applied in its entirety to an office. The attempt to use such a system is likely to result in an adjustment of the office to the system, rather than of the system to the office.

In all probability, most offices have certain useless forms either because the information contained in a certain form is recorded elsewhere, or because the information is being collected for an emergency which, in all probability, will never occur. In a large office, it is not impossible to start a system of records and forget to stop the system when the reason for its use has passed.

19. *New forms.*—Any proposed new form should be carefully examined to determine just how it is to be used and just what results may be expected from it. If the form is to be printed, the convenience of the printer is worth considering. The size of paper ordinarily used for office forms is 34 x 22 inches, while the size of cardboard used in making card forms is 22½ x 28½ inches. There is economy in preparing forms of a size that permits the sheet to be cut without

waste. For example, there are eight 8½ x 11 sheets (the standard letterhead size) in the 34 x 22 sheet. In the same way, there are a certain number of standard-sized card forms; for example, 3 x 5 and 4 x 6. If the forms are to be used on the typewriter, the dotted lines (often wholly unnecessary) should correspond to the typewriter spacing.

Where the quantity of miscellanous forms is fairly large it is often economical to print these forms in the office. The use of small printing presses or reproducing machines described in Chapter IV, will be suitable for this purpose. It is unnecessary to consider artistic design or fine printing on forms that are intended solely for office use.

Letterheads should receive due attention from the viewpoints of standardization, cheapness and advertising value. The modern practice is to use lithographed letterheads because of the clear-cut appearance which such work produces. If ordered in sufficient quantities, the price is not very much higher than ordinary printing and therefore the expense is not an obstacle.

The question of buying paper direct from the mills should be considered when large lots are being bought or when special runs or special grades of paper are required. Nearly all printers make a handling charge for paper, and the saving of this charge may be worth while.

It has been found that a weight of forty pounds to the ream is about the correct grade of paper for letterheads. A heavier weight is used chiefly to add to the impressiveness of the letterhead. A lighter weight is too flimsy and weak for satisfactory service.

20. *Economical purchases.*—Economy in purchasing is obtained, as a rule, by means of standardization. But economy is also at times secured by the opposite method of splitting up the purchases into different grades. For example, cheaper paper, envelops and forms often suffice for interdepartmental communications, when the stationery used for correspondence with the outside world must be of a higher grade. Water-marks have an advertising value in the firm's outside correspondence, but they are an extravagance when used in office forms. A good quality of paper is needed if erasures are frequent, if ink must be used in writing, or if records are to be kept for a long time. An executive frequently requires a specially high grade of private correspondence paper, cut to a non-standard size. Distinction is added by the very unusualness of the paper's appearance. Too great economy, however, does not pay, even in the purchase of the most ordinary supplies. In a recent law suit, carbon copies of an important document were produced in court. But in this instance a cheap grade of carbon paper had been used and an important matter of the document was not fully reproduced in the carbon duplicate.

21. *Purchasing department.*—The actual purchasing of supplies should be concentrated in the hands of

a person or a department. In such a department information concerning sources of supply is gathered and classified, and catalogs, price lists and quotations are kept. The purchasing department receives requisitions, properly countersigned. It makes out and sends orders, follows up the prompt filling of those orders, inspects the quality of the product, and passes the invoice on to the accounting department for payment. As the volume of business grows, it is worth while from time to time to figure anew whether it would not pay to have certain printed forms prepared on a duplicating machine in the office. For purposes of comparison with later quotations the purchasing agent should file a sample of each lot, and file with it the name of the printer, the date, the price and the quantity ordered.

22. *Stocks of supplies.*—In a well-kept stockroom office supplies will be kept in an orderly and easily accessible manner. Adjustable steel shelving is ideal for this purpose. Where the stockroom is not reasonably free from dust, stationery must be kept inclosed. Another requirement of a good office stockroom is a system of records serving as a perpetual inventory for each item of supplies. Such a record for each item may often be kept on a 3×5 index card, the amounts received, delivered, and balance on hand being carried in parallel columns. A "low limit" is written in a space at the top of the card, and when the balance approaches that limit, additional stock is ordered. This is important since a sudden

Maximum ____________

Minimum ____________

STOCK CARD

Form No. ____________

Name ____________

Price ____________

ON ORDER		RECEIPTS			DISBURSEMENTS			BALANCE	ON ORDER		RECEIPTS			DISBURSEMENTS			BALANCE
Quantity	No.	Date	No.	Quantity	Date	To	Quantity		Quantity	No.	Date	No.	Quantity	Date	To	Quantity	

shortage in supplies may entirely hold up part of the office work.

The stock card on page 43 indicates the rulings generally used.

23. *Rate of consumption.*—Office supplies and stores are funds in concrete form, and should be handled just as carefully. Stores should not be issued except upon proper requisition, and the rate of consumption should periodically be checked with that of former periods. It should be a fixed rule that all supplies, except those immediately needed, must be kept in the stock-room and not lying loose about the office or in the desks of its occupants. The office boys serve as the connecting links between the workers and the stock-room. Clerks and stenographers are not employed to run to and fro looking for supplies.

REVIEW

What would you, as office manager, do to arouse alertness and economy of time and supplies in the force?

Why do so many office workers continually complain of being loaded up with work?

What suggestion is there for the office manager in the matter of regulating supplies, when he watches a depositor present his check to the cashier of a bank?

What advantages are found in the standardization of office equipment? Of office supplies?

CHAPTER IV

OFFICE APPLIANCES

1. *Labor-saving machinery in general.*—The development of labor-saving machinery has been one of America's distinctive contributions to the world's progress. One reason for this development is the high labor cost and the labor scarcity from which we have always suffered. The many undeveloped resources of America have clamored for men to develop them. Yet men could not be supplied in sufficient quantities. Therefore we were driven to invent machinery to take the place of men or to make the work of man more effective than before.

Instead of a scythe, we gave the laborer a reaper. We took from his hands the flail and gave him a threshing machine. For a hand shovel we gave him the steam shovel with which the Culebra Cut was conquered. We took him from between the handles of a wheelbarrow and set him in the cab of an electric traveling crane. We took labor off the stage coach, which could haul only a ton at a time, and put it at work inside a Mallet locomotive, which pulls four thousand tons of freight in a train across the prairies. For the courier and the messenger we substituted the telegraph, the telephone and the railroad mail service. For the slow one-horse cart we substituted the swift ten-ton motor truck. We did it because we had to.

2. *Labor-saving machinery—in the office.*—It has not been otherwise with office appliances and office machinery. The United States has led the world in developing them. We have mechanical substitutes or assistants for messenger boys, stenographers, mailing clerks and statisticians. In the modern office there is no individual and there are few operations for which mechanical assistance cannot be provided. It is strange that many a concern which has equipped its factory laborers with every device that could heighten their efficiency, hesitates to adopt labor-saving office machinery. Such concerns feel that office work is entirely brain work and in no degree a set of mechanical operations. They would be surprised to learn thru a study of psychology that a large amount of brain work is either mechanical or subject to mechanical assistance. Such assistance sets the brain free from drudgery and leaves it available to perform higher types of mental tasks.

3. *When to purchase.*—In the purchase of office machinery, as of other machinery, it does not pay to buy a machine unless, after comparing the costs of handling the work without the machine with the estimated cost of the work with it, it is determined that by means of the savings accomplished the machine will pay for itself in the course of a reasonable time. The office that sends out only a few letters a day does not want a dictating machine, nor does it need mailing

machines. The purchase of a machine under such circumstances, however, may sometimes be justified by its mechanical perfection, the prevention of mistakes, or by the superior quality of its work.

4. *Records of efficiency.*—Before buying an office appliance or a piece of machinery, it is usually wise to test it in your office routine. A careful comparison should be made of all competing types, so that the one best suited for the work may be chosen. A record should be kept showing date of purchase, serial number of the machine, cost of repairs and cost of supplies. A machine may not cost much in the beginning, yet if there are frequent break-downs and repairs it becomes expensive and an annoyance. A record will be of value when the time comes to add to the equipment.

5. *Machine groups—typewriters.*—Office appliances or machinery may be divided into several groups, the first and most important of which is the writing machine—the typewriter. In selecting a typewriter, standard makes should be preferred. Durability, ease of operation, cheapness of repairs and quality of work are the deciding features. The quality of work depends partly upon the type face chosen. One can obtain for any standard typewriter the choice of several type faces, from the small elegant type suitable for personal or social correspondence, to the large, clear type designed for purely commercial work. Sometimes an executive prefers the more elegant type.

It is desirable that all the machines in an office be of the same make. Operators and machines are thereby interchangeable. A single extra machine, kept for emergency, will then take care of a breakdown anywhere in the office. Repair bills will be lower and the typewriter company's service man may on his regular visit inspect all the machines in the office.

6. *Special type.*—There is now an electrically driven typewriter, the chief feature of which is its light touch. Like other writing machines, it is operated by a typist, but her touch merely makes an electrical contact after which electro-magnets move the type bar to the paper. A uniform stroke is thus obtained, producing an evenness of impression that looks like printing.

The noiseless typewriter, which has been on the market for some years, is coming into wider use. It is particularly suitable for stenographers who work in the room with executives.

For the typing of cards a special roller may be adjusted to any typewriter, providing a fastener for the end of the card. This makes it possible to type on the card without rolling it.

The flat top machine—better known as the billing machine—makes it possible to type cards or other material of such a size as would not ordinarily fit the roller of a regular typewriter. This machine has no roller, the paper being placed on the flat top and fastened down. The type strikes downward instead of upward, as in the case of the ordinary machine. Where a large quantity of cards is being typed daily, it has been found practical to perforate the cards and arrange them in sheets to fit the plate, making it easy to separate them after they are typed. In this way, ten cards may be typed with one insertion.

7. *Care of typewriters.*—Care of the typewriters should rest upon some one person. It should be his duty to see that the printed rules for the care of typewriters are observed; that the machines are covered when not in use, that the type is regularly brushed, that track and bearings are oiled at least once a week. Change of ribbons, for example, where the number of machines warrants it, is made by a man accustomed to that work, who does it very quickly.

Large companies frequently employ a mechanic to make regular inspection of the typewriters. Smaller users may arrange with the manufacturer for periodical inspection. A typewriter should not be kept until too old. Much time is frequently wasted upon a defective typewriter when the tabulator does not work well, when the spacing gear is worn or the carriage sticks. Good work cannot be done with worn-out type or wrong alignment. Old machines need not be scrapped; they can, as a rule, be traded in for new ones.

8. *Copy holders.*—An important typewriter accessory is the stenographer's copy holder. The papers to be copied are held directly above the typewriter or a little to one side. An adjustable metal bar on the

holder is always just below the line of the stenographic notes that are being copied. The key that raises or lowers the bar is next to the keyboard of the typewriter so that it can be struck without any waste of time or effort.

9. *Dictating machines.*—Dictating machines replace the skilled stenographer by the mere typist, or if the old stenographer be retained, they make it possible for her to spend her time in typing, with no interruption for taking dictation.

The dictator talks into a tube or horn which carries his voice to a wax cylinder revolving on an electrically operated spindle. When the dictation is finished, an office boy takes the cylinders to the "reproducing machine" used by the typist. In the main, this machine is a duplicate of the dictating machine, except that there is a hearing tube with branches that fit into the operator's ears. Her hands are thus free to operate the typewriter. With her foot she presses a pneumatic release that starts or stops the machine. The cylinders, once transcribed, are put into a shaving machine, which removes a very thin layer of wax, whereupon the cylinder can be used for a new impression.

10. *Their advantages.*—The dictating machine saves the time ordinarily spent in taking dictation and in waiting while dictation is being interrupted, as for example by telephone calls. Often one typist can transcribe the dictation of two or more correspondents. The machine repeats the dictation any

number of times desired. The dictator may talk as fast as he wishes. The typist may reproduce the dictation as slowly as she chooses. The dictator is not bound to wait for his stenographer to be ready. The dictating machine is always ready. It is possible, therefore, to dictate in off hours or even at home.

By "reversing" the needle, a dictator can hear what he has said. By means of a correction pad he can indicate the length of the letters or other dictation, and also make any necessary alterations in his dictation.

The United States Commission on Economy and Efficiency, after making exhaustive tests of the relative cost of letters produced by dictating machines and by stenographers, installed sixteen dictating machines in government offices. The experiment, which lasted ten weeks, showed that the cost per letter by the stenographic method was 4.3 cents; by the phonographic method, only 2.7 cents.

11. *Their limitations.*—The greatest savings effected by the dictating machine are seen where a great mass of routine correspondence makes it possible to employ a central bureau of typists to transcribe the dictation.

There are circumstances, however, in which dictating machines do not fit so well. Where the volume of work is heavy it is often impossible to have letters written on the same date as dictated, if the cylinders are transcribed in the order received. The granting of preference to "Rush" cylinders tends to break up the effectiveness of the system. Executives usually do not wish to wait for their letters. Their correspondence, too, may be of a private nature, which they do not care to intrust to the typists. Therefore an executive usually has a private secretary who types his letters in addition to keeping his private files, answering his telephone and relieving him of a multitude of routine tasks.

12. *Ignorant prejudice.*—Nevertheless, the dictating machine still has a great field ahead of it. In many cases it is opposed by men simply because of their ignorance or because of their unwillingness to make the effort necessary to learn to use it. To use the dictating machine most advantageously, the dictator must think clearly and express himself grammatically. It is better if he will also dictate punctuation, tho that is equally true of letters given to a stenographer. He must learn to speak distinctly, pronouncing every syllable. It requires some effort to learn these things. Older employes are sometimes unwilling to make that effort.

Formerly there was strong opposition to the use of dictating machines on the part of stenographers. First, they thought that it would ruin their hearing. That fear proved groundless. Second, they feared that, being in effect reduced to mere typists, their wages would be cut; but such action has not followed the introduction of dictating machines. Frequently the employer has shared with the typist the savings brought about by the new system, so that her wages became higher instead of lower.

13. *The stenotype.*—The stenotype is designed not to replace the stenographer but to increase her efficiency. This aims to do for stenography what typewriting has done for longhand. The operator records the dictation direct into the stenotype machine, which has twenty-two keys. By means of these keys letter combinations are printed on a strip of paper and can be deciphered by any one familiar with the code. The stenographer thereupon writes her letters from these stenotyped slips. It is said that even an ordinary operator can take words at the rate of 150 per minute while an experienced operator can take as many as 250 words per minute. This rate of speed obviously exceeds ordinary commercial needs. The present use of the machine is primarily for such purposes as rapid-fire conferences, lectures, or the court-room.

The next group of machines is the duplicating machines, designed to reproduce correspondence or other types of material already prepared.

14. *Copy presses.*—The old-fashioned copying press has all but disappeared. By that process a letter, typed with an indelible ribbon or written with indelible ink, was copied into a tissue-paper book. It is still used in law offices where it is considered of importance to keep original records of documents, but the method is cumbersome and the time wasted is considerable.

The modern form of this particular duplicating machine is the rotary copy press. The letter to be copied is inserted, face downward, between two rolls.

As it is run between these rolls, it is pressed against very thin copy paper which has been moistened and which is then wound up on a reel. When the copy dries, it is cut to letter size and filed. It is claimed that its use saves the time necessary to insert carbon paper in a typewriter. The thin copy from the rotary presses is, however, difficult to handle.

15. *Automatic typewriters.*—The automatic typewriter is perhaps in the highest class of duplicating machines. It is an actual typewriter, electrically operated. Its keys are connected with pneumatic tubes, controlled by a perforated stencil, which works on the same principle as the music roll of the mechanical piano. The stencil is written on a special machine equipped with a typewriter keyboard. The automatic typewriter is used primarily in writing form letters. The address and any special paragraphs can be filled in on a regular typewriter having the same type face as the automatic. On some machines addresses and special paragraphs can be written from a special stencil roll which is at the proper time switched into operation instead of the master roll that carried the form letter.

The automatic is capable of doing as much work as two good typists. The economy of the automatic typewriter obviously depends upon the number of letters to be sent. If the number is small, it is cheaper to have them typed directly than to cut the stencils and have the high fixed charges of the automatic typewriter distributed over a few letters.

16. *Stencil or gelatine duplicators.*—The average duplicating machine, however, is much cheaper as well as simpler than the automatic typewriter. A stencil is made, usually on the typewriter, and attached to an inked cylinder. From this, any number of copies can be drawn off. This machine can do an immense amount of work by way of getting out sales lists, salesmen's instructions, price lists, folders, report blanks, bulletins, postal cards for circularizing, and even in printing the house organ. Similar to this stencil duplicator is the gelatine duplicator.

17. *Type machines.*—For a higher class of duplicating work the type duplicating machine is used. Its type letters—the same as those used in the company's typewriters—are set on a rotary drum which is pressed on a typewriter ribbon and so imprinted upon paper. "Imitation typewriting" is thus produced. Addresses can be filled in, and a letter is produced which is difficult to distinguish from a real typed letter. This, like other duplicating machines, is vastly more efficient if electrically operated. The machine produces a clearer copy than the duplicating machine; the impression dries quicker and the ink is not smudged.

18. *Printing presses.*—Finally, among the duplicating machines we have the office printing press. The class of work that it turns out is of course superior to that of any of the other duplicating machines mentioned. It is, however, expensive to own and operate and unless a good volume of work can be

provided for it, it is cheaper to have the work done by a printer. The printing press can be used to print the firm's house organ, perhaps its letter-heads and envelops, and a great volume of circular and other literature for customers. The question of purchasing a printing press resolves itself into the question: have we enough such work and the right kind of supervision to make it pay?

19. *Photographing machines.*—A special type of duplicating equipment is the photographing machine. For business purposes, there has been developed a special type of camera that does not require expert use. A sheet of paper, a drawing, a page of a book, is photographed, and from the negative any number of prints can be made. The first large-scale use of these machines was by the insurance companies, who used them to produce duplicates of their policy applications. Today the machine is used for a variety of purposes. It reproduces ledger pages, plans and specifications, tracings, signature cards, securities, and many other valuable documents.

This machine offers the simplest method for reproducing a complicated statistical exhibit. The New York Public Library has such a machine which, upon demand, may be engaged to make such reproductions of material in the library, the reproductions being sold at a nominal cost to patrons. President Taft's Commission on Efficiency and Economy reported that the use of these machines in copying written and printed documents, maps, drawings, records, etc., in various departments of the government in Washington would cause a saving of $100,000 a year.

REVIEW

Account for American ingenuity in the invention and use of labor-saving office machinery.

What are the peculiar advantages in installing uniform typewriters?

Under what conditions, in your estimation, will it be advantageous to substitute dictating machines for stenographers?

What is a stenotype machine?

Compare the various duplicating machines and indicate when each will be the proper machine for installation.

CHAPTER V

OFFICE APPLIANCES (*Continued*)

1. *Communication machines—the telephone.*—Communication machines form the next group of office machines. First and foremost among these is the telephone, which is the principal means of communication between the office, the factory, and the world outside. As a general rule, it is better to have too many than too few telephones. The outside dealings of an office cannot be properly subdivided and efficiently handled unless there is a sufficient number of telephones in the office. The switchboard operator can save a great deal of time and confusion by properly directing the traffic of inward calls and calling outside persons. If the switchboard does not occupy the operator's entire time, some supplementary routine task can be assigned to her. The important matter of telephone courtesy should be emphasized when the operator is trained for her work.

2. *House telephones.*—Where there is a switchboard operator it is possible to use the outside telephone installation for purposes of communication between persons in the office. An objection to this practice is that it often delays outside business. Another objection is on account of the delay in making

the connection by the switchboard operator. The automatic or house telephone system is designed to remedy these defects. In the case of the automatic telephone system each extension can make connection with any other telephone on the line which is wholly independent of the public telephone. The connection is instantaneous. Maintenance requires little time, and the salaries of switchboard operators are saved. By use of the telephone for office communications, employes can "talk instead of walk," and thus save time.

3. *Executives' telephones.*—Frequently an executive, unless protected from interruption by telephone, would be prevented from doing concentrated work or from holding conferences. The switchboard operator is usually too busy to afford him such protection. It is the duty of his private secretary to receive his calls, handle all business that is of a routine nature, and arrange for the postponement of even important calls when the executive must not be disturbed.

4. *The telautograph.*—The telautograph is an instrument which transmits handwriting electrically by wire. The message is written by means of a pen on an automatic shift pen roll which guides other pens, electrically, at each receiving station. Persons writing on the telautograph can communicate a message in the same handwriting to any connected receiving station in the same building or even many miles away.

The telautograph, which is an expensive installation, was first used by hotels for communication between the desk and the floor maids. The system is now used in banks and department stores to obtain credit information without having to ask aloud for it in the presence of the person investigated. It can be used by the office boy to announce callers to executives. It can be used for many forms of intercommunication in the office where a written message is preferable to a spoken one. Verbal instructions over the telephone may be misunderstood or forgotten unless jotted down at the time. A telautograph order is unmistakable—there are identical records of it at two places.

5. *The dictagraph.*—A highly perfected means of intercommunication between office departments is the dictagraph. At first it was used chiefly for the detection of crime. It is now a recognized office appliance. The dictagraph consists of a receiving instrument in the chief executive's office, connected by wire with the corresponding instruments in other parts of the building. The executive at his desk can make connections with any of the receiving stations, issue orders to the men in those rooms and even overhear their conversation. Letters can be dictated to a stenographer in another room. E. F. Hare, president of the Packard Motor Car Company of New York, thus describes the use of the dictagraph:

> One of a busy executive's greatest losses of time is thru personalities. Most of the people who speak to the president spend four minutes in "mouth talk" to every two minutes of "brain talk."

> High executives don't see half the men they really want to see because they cannot hold them down to the business at hand.
>
> With my ——, I can press a key, ask a department head a question, get my answer, say "thank you" and use the information for answering my telephone, while writing a letter or making a decision, in less time than the usual courtesies of a usual interview.
>
> I lift no receiver, and do not even change my position at the desk. Our whole organization is connected, the —— system affording completeness of communication.
>
> We don't put off so many things now that we have the —— system. We don't hold up something for a department head until enough has accumulated to make calling him worth while. We "do it now."
>
> The —— system practically seats every other executive in the office at one's elbow, yet far enough apart that each can do his particular work best.

The disadvantages of the system, on the other hand, are found in the fact that the wiring and machinery are usually sensitive and easily get out of order. That is particularly true in an office where there are many office boys. The system, being novel, offers much amusement and opportunity for practice on it after office hours and during the luncheon hour, and the system cannot well stand such abuse.

6. *Mechanical messenger boys.*—Finally, we have mechanical messenger boys.

There are two forms—the pneumatic tube and the overhead carrier, both familiar from their use in retail stores. In either case there is a central desk to which the pneumatic cylinder or the overhead basket carrier is sent and thence distributed to destination.

The small pneumatic cylinders are suitable for carrying messages, sales slips, cash, etc. In the basket carriers, light articles, such as files, can be transmitted. The overhead carriers can do the distributing and collecting for a central filing department, if the entire office is on one floor.

7. *Mathematical machines.*—Mathematical machines make up the next group. They are designed primarily to do the arithmetical tasks which formerly proved so burdensome to the clerks. To the latter these machines are what the rock drill is to the subway laborer, or the compressed air riveter to the structural steel worker.

8. *Adding machines.*—The most largely used and best known of the mathematical machines is the adding machine. Compared with the human brain it has the double advantage of greater speed and greater accuracy. There are two types of adding machines—the listing and the non-listing types. The listing machine writes down each item which goes to form the total that is calculated. The non-listing machine does not write down the individual items, but merely performs the calculation desired and gives the total, which is sufficient for the purpose of verifying a mathematical calculation already made. The listing machine is more expensive and its operation is, necessarily, somewhat slower. An analysis of the requirements of the business will show which of these types of machines is the more suitable. Subtraction, multiplication and division can also be performed upon

the adding machine, but in larger offices these operations are usually left to the calculating machine.

In one firm an adding machine is employed to do the following pieces of work:

Adding trial balances
Balancing accounts
Adding voucher check books
Adding daily sales
Adding and balancing daily sales analyses
Adding cash
Extending and proving bills
Figuring inventories
Totaling cost sheets
Extending, adding and proving pay-rolls

In addition, the machine distributes the pay-roll by departments to:

Total day working hours
Piece-work
Overtime earnings and allowances
Percentage of piece-work hours
Average weekly wage per hour
Average piece-work hour wage
Average wage by departments.

9. *Calculating machines.*—On the specific calculating machines, addition is less rapidly performed than on the adding machines, but subtraction, multiplication and division are much more rapid. These operations are performed with integral numbers, fractions or decimals. Square root and cube root also are extracted. All work is visible, and unless the operator is careless, mistakes are impossible. If he is careless,

the machine reports his error. These calculating machines can be used in a great variety of ways to figure percentages and ratios, and in working out a whole mass of statistics now used for managerial control. Such a machine does wonders in banking houses where at the end of the day twenty checks may be credited to a person, and fifteen more debited, the subtraction made and the balance given—all mechanically perfect and infallible.

When one considers the present use of adding and calculating machines, it is difficult to understand how the monthly statements for customers could be prepared by unaided human addition and subtraction. Under such circumstances the present volume of banking business could not be handled without at the same time tripling the clerical force.

10. *Billing and bookkeeping machines.*—A combination of the typewriter and calculating machine is the so-called billing machine, or bookkeeping machine. In its ordinary form it is a typewriter with the keys located at the top of the machine instead of at the bottom. They strike upon paper that is laid flat. The writing is at all times visible. In addition to the typewriting feature they have an adding and subtracting register which can be supplied to any column of figures listed. These billing machines are invaluable for retail stores with a large number of charge accounts that sometimes run into fifty items and contain credit items for "goods returned."

11. *Loose-leaf or card bookkeeping.*—With the use

of cards or loose leaves for accounting records, the use of bookkeeping machines has been extended to the keeping of individual ledger accounts. In view of the fact that by means of these machines a number of carbon copies can be made of each record, they are especially useful where such duplicates are required. It is possible to take a page of a ledger, insert it in a machine, make the proper entries, replace it in the ledger—all in less time than was required to make these entries in pen and ink. However, the main value of the system lies in the automatic proof which it affords and in the elimination of duplicate operations, as in the making out of invoices and accounts. Any number of copies can, of course, be made. As for neatness and legibility, even the best handwriting is much inferior to the product of the typewriter.

H. J. Loughran, Comptroller of the National Surety Company of New York, has described the advantage of mechanical bookkeeping in one of the issues of the magazine *100%*.

> We use electrically driven —— bookkeeping machines, combining the adding and typing features, which give us a loose-leaf original register of the business written, arranged by policy expiration dates, with total figures for the computation of pro-rata premium reserve in one original book of entry.
>
> In addition to this register, we create at the same writing, by means of carbon paper, our underwriter's index of each page on a four by six card; our expiration record on a similar card, and a Hollerith tabulating machine card on the reverse side of which is typed in this operation a description of the bond policy.

This work was formerly done in two operations, in addition to which the work of computing the reserve was done by a force of men on standard adding machines by process of selection of policy expiration dates. Combining this work as we have, we have saved in pay-roll, seven typists and three reserve clerks.

We have obtained an original book of entry, arranged numerically by policy numbers of which we have felt the need for several years. We give identical copies of all records to all departments interested in the risk, and thus do away with the errors occasioned by recopying the different forms.

12. *Cash register.*—The cash register can also be used for office purposes; for example, to give the bank balance to date. The register can print upon each deposit slip the total amount of the deposit. It can also print, upon each check, the amount of the check drawn. Adding counters on the register can add the total of deposits during the day to the bank balance of the day before. Then, from this total, the day's bank balance can be determined by subtracting the total of the day's checks.

In the same way, the cash register can keep track of bills paid, sales, money paid on account and petty cash expenditures. The totals of these items can be continually registered and kept so that the status of any feature of the business can be readily ascertained.

The business of a certain publishing house is largely conducted on an instalment basis. To facilitate handling the accounts, each is given a number. When checks or remittances of any sort come in, they are usually accompanied by a letter from the customer.

If the letter does not give the customer's number, a file is consulted and the number marked. Each payment is then rung up on the letter received from the customer, the cash register giving the amount of the remittance, the date received and the number of the account. A carbon of this information is recorded on a roll which remains in the register.

The customer's letter is forwarded to the proper department for handling and the carbon on the roll goes to the Accounting Department for credit to the customer's account. The carbon is then pasted in a cash book for permanent record.

In addition to the above, the register gives a daily and monthly total of the money received. The daily total is used to check up the deposits, while the monthly total is used to check up the accounting books. The monthly total is consulted also for quick reference to the business done.

The register in this case was specially constructed to meet the requirements of that office. It pays to study the needs of your business and build a register to fit those needs.

13. *Statistical machines.*—The most remarkable of all appliances in the mathematical group are the so-called statistical machines. The first made was intended for use in the census department at Washington, and the tabulation and calculation of census results would now be impossible without it. The machine has three parts which operate upon specially designed cards. One machine, operated in a manner

similar to a typewriter, punches the cards in designed squares. Each square has a particular significance; a punch in one may mean a salesman, a state, or a sum of money. For each sale such a card is punched. The punched cards are assembled and taken to the sorting machine. By an electrically controlled sorter all the cards of salesman "A" will be picked out, the sorter choosing only those which are punched in "A's" square. The cards thus chosen are then taken to the calculator—an adding device which will give the total of "A's" sales. In making its addition, the machine is guided by the punches which represent the sum on each card. When the analysis of sales for each salesman has been completed, all the cards can again be run thru the machine, and this time sorted and totaled to indicate the month's sales by states, or by grades of product. Montgomery, Ward and Company use such a machine to make analyses of their sales in four different directions:

1. Territorially, or by states.
2. By departments, or kinds of goods.
3. By methods of shipment, express, freight or parcel post.
4. By method of order—whether thru the catalog or otherwise.

The possibilities of analysis to which these cards lend themselves are illustrated by the use which the census department makes of them, ascertaining the number and geographical distribution of the inhabitants, their classification according to color, race, nativity, parentage, age, marital condition—and in addition furnishing statistics which are subdivisions of these headings.

Some firms now make a specialty of offering the services of statistical machines for customers who have occasional use for them. Concerns which could not well afford to own these machines may hire work done on them by the service concerns.

14. *Semi-mathematical machines.*—There is another group of machines closely related to the mathematical group, and not deserving separate classification. There is, for example, a small hand stamp for the consecutive numbering of requisitions, order-blanks, etc. There is also a check protector which macerates the figures of a check in the paper, at the same time letting colored ink into the maceration, making it almost impossible to change the figures without detection. A less desirable machine is one which stamps, for example, "Not over $500." Here leeway is left for the falsifier.

An ingenious machine is the check signer, by means of which ten checks may be signed by one person at the same time. The machine works on the principle of the telautograph, already described. When the ten checks have been signed, they are dropped into trays, and ten other checks are slid under the pens. It is said that by the use of such a machine a person may sign his name twenty thousand times in a day.

The machine is of particular use to high corporate officials upon such occasions as the issuance of thousands of new securities which, under the law, must be signed by a specified person.

15. *Mailing machines—the addressing machines.*—A number of machines can be listed in the mail group, because they have to do with the preparation or opening of the mail. The most important machine in this group is the addressing machine. Its purpose is to prepare permanent lists of addresses, carried either on stencil cards or type plates. These type plates or stencils are filed in receptacles exactly as index cards are. Out of the cabinet holding these addresses, the plates or stencils are automatically let into the machines by which envelops, post cards, bills, etc., are addressed in rapid order. When the envelops have been printed, the address plates drop back into the cabinet drawer, so that the original order of the arrangement is maintained. Such address-lists can be used by mail-order houses, newspapers, banks, collection departments, sales departments for lists of prospects, and in general by any organization or department having a great number of persons with whom it must periodically communicate. It enables any boy or girl, in a few hours' time, to do the work that used to require days and weeks of clerks' time. It enables anybody to fill in letters, address envelops and circular letters, head up and date statements, imprint pay forms, shipping tags, labels and the like at the rate of one thousand to three thousand per hour, which is ten

to thirty times faster than the pen or typewriter. There is no possibility of error or omission. Where it is worth while to employ the addressing machine, it is generally worth while to attach to it a motor which operates it electrically.

16. *Letter openers.*—Where there is a large volume of mail to be opened, a letter opener is indispensable. Even when it does not result in any great money-saving, it does save time and gets the mail opened for prompt distribution. The knife can be so adjusted as to cut only one-hundredth of an inch from the top of the envelop. In the larger power machines the envelops, regardless of size, can be set in the machine, carried between two rollers and opened with great speed.

17. *Time stamp.*—In connection with an envelop opener, a dating machine or stamp can be used to indicate, upon the mail opened, the day and the hour of the day when it was taken out of the envelop. The use of the time stamp is of course not confined to the dating or the opening of mail. Time stamps can be used thruout the office for indicating the time at which bills were paid, records were filed, or the time at which work passed from one department to the other. This latter use of the time stamp is valuable in following up the passage of work thru the office routine, and in checking any inefficiency of movement.

Date perforators will stamp from half a dozen letters to half a hundred at a time, depending upon the size of the machine used. They can be adjusted to stamp at any one of four periods during the day; that is, these perforators do not mark the hour of the day, but after perforating the date, the perforation of an extra dot signifies the letter was received the first part of the morning, two dots, the latter part of the morning, and so on.

18. *Letter folding.*—Where a firm sends out a thousand letters a day, it may pay to have a folding machine to fold the letters for insertion in the envelop. Such machines, which can fold a piece of paper one, two or three times, are also suitable for folding circulars, usually received from the printer in flat form. The machine is electrically driven. Of course, its use results in accuracy and neatness not easily attainable by hand folding. The main use of this folder is for form letters; the main objection to its use is that when there are two sheets to a letter each one is folded separately.

19. *Envelop sealer and stamper.*—Where the volume of daily mail is heavy, it is difficult to get along without an envelop-sealing and stamping machine. The machine is operated electrically, moistening the gum and sealing the envelops. Stamps are affixed automatically. The machine does its work rapidly and neatly. The number of envelops sealed and the number of stamps used are indicated on a register.

There are also separate stamping machines. Stamps purchased from the post office in rolls of one thousand each are locked into the stamp box and cannot be extracted except as they are pasted on letters and registered. In this manner petty thieving of postage stamps is stopped.

20. *Envelop feeders.*—There is an envelop feeding machine which feeds envelops into typewriters. It is of value only when the volume of envelops addressed by one typewriter is very large or the supply constant.

21. *Time clocks.*—There is also a small group of machines or appliances not so readily classified, among them the time clock which is used in most factories and in some offices as well. The device consists of a clock with a time stamp, located between two racks. The rack at the left indicates those who are in the office; that on the right, those who are out. In each rack is a place for the card of each employe. When he enters in the morning he takes his card from the right-hand rack, stamps it and places it in the left-hand rack. When he goes out, he similarly stamps his card as he transfers it from the left to the right-hand rack. Those who are late have the time indicated in red on their cards. Each individual thus supplies his own attendance record.

Time clocks, however, are not generally used in offices because the concentrated office force may be more readily supervised than the dispersed employes of factories or such places of employment as shipyards. Office employes are moreover likely to be of a class that resents this mechanical recording of their coming and going. And it is true that between them and their superiors there should exist a relationship that would produce the same degree of punctuality as that which the time clock enforces.

In offices employing one hundred people or more it has been found practical to employ some mechanical method of checking arrivals and departures. One time clock has a dial on which are numbers which correspond to the numbers assigned employes. A lever marked "in" and "out" is used for punching the number whenever the employe passes in or out. The records are marked with the employe's number and the time punched "in" or "out." In this way, any system of disciplining those who are habitually late is easily established.

22. *Minor appliances.*—It may seem unnecessary to mention such well-known devices as paper fasteners and pencil sharpeners. It is worth while, however, to point out the importance of having a sufficient number of pencil sharpeners handy, or of having an office boy charged with the duty of seeing that each employe is supplied with a sufficient number of sharpened pencils to meet his or her requirements.,

23. *The paper-cutting machine.*—A paper-cutting machine is profitably used in many large offices. Ordinarily the cutting charge for 500 sheets is ten cents. Since much of the paper used in the office can be cut on this machine, considerable saving is thereby effected. Usually a ream of paper may be cut at a time—depending, of course, upon the weight of the paper.

24. *The padding machine.*—In every office there is a certain quantity of discarded paper which can be used as scratch pads if put up in convenient form. The most economical way of doing this is to use a padding machine. After the paper is sized to pad, strips of cardboard are inserted to form the backs of the pads. The press is then tightened and the sheets of paper are kept together by means of an application of cement and cheese cloth. After the cement is allowed to dry, the pads are cut according to size wanted.

25. *The binding machine.*—For the purpose of binding together the pages of a house organ, reports, or any other literature for office use, a binding machine operated either by hand or by a treadle may be secured. Wire staples are fed into the machine and by means of the treadle the wire is driven thru the paper and clinched on the other side. Sheets of paper to the extent of one-half inch in thickness may be fastened by this machine.

26. *The baling machine.*—Waste paper of all kinds may be turned into money by the use of a baling machine. This machine is about four feet square. Wire with which the paper is to be strapped is placed in the machine. After waste paper of all kinds is dumped into the box, a weight is screwed down. When the box is filled, the sides are removed and the wire fastened, thus making a bale. Paper in this form usually sells for about 60 cents for 100 pounds. There are about 600 pounds to a bale.

REVIEW

Plan a telephone system most suitable for the office with which you are connected.

What is the telautograph?

What are some of the mathematical machines, statistical machines and mailing machines now in use by different offices?

Do you think that the installation in your office of any of the communication or mathematical machines discussed in this chapter, other than those now in use, would be justified by the resulting increased efficiency?

CHAPTER VI

SELECTION OF EMPLOYES

1. *Importance of proper selection.*—The importance of proper selection of employes can hardly be over-emphasized since an office in the last analysis depends upon the human element for success. The management may provide model equipment and may develop faultless systems but the office will not operate successfully unless the individuals who actually do the work are able to cooperate intelligently.

We must consider, too, that poor selection is costly. While it is true that an unsatisfactory worker can be easily removed it must be remembered that every discharged employe represents no small investment of time and money in hiring, training and supervising. Thirty dollars is a conservative estimate of the average loss occasioned by the discharge of a clerk who is not able to measure up to the task for which he or she was hired.

Aside from this loss that can be measured there is an even bigger loss in the weakening of the *esprit de corps* caused by a rapid turnover of help.

2. *The art of proper selection.*—It would be absurd to take the stand that any plan can be developed which would wholly eliminate errors of selection.

There are, however, definite principles and methods that reduce the chance for error to a minimum. In the first place experience has proved that if the responsibility for hiring is centered in one individual or in one department it is possible to get better results than if this responsibility is scattered over a number of department heads. Secondly, if every position is carefully analyzed so that the requirements are clearly understood there is much less chance for error in placing employes than if the requirements are guessed at.

3. *Centralization of employment.*—Centralized employment is the objective towards which every well organized industry tends. Employers now realize the fact that one man, even tho indifferently equipped, can do a thing better the twentieth time than twenty men can do the thing the first time. Centralization gives some one person the opportunity of acquiring a cumulative knowledge of men, a wide experience in methods, a control over individual efficiency thru the use of records and a uniform method of dealing with employment problems.

In an organization where employment is not centralized it will be found that the personnel of some departments is better selected than that of others. This condition in itself presents an unanswerable argument for centralized employment. It is not the purpose of the centralization of employment to take away from the department head the privilege of selecting his own force. The department head must be the final arbiter in all cases. What centralized employment does do, however, is to refer to the department head only those employes whose addition to the force would be an asset instead of a liability.

4. *The employment manager.*—In large organizations the centralization of employment has developed the need for an employment manager—a relatively new factor in business. An employment manager must have unusual qualifications. He must have experience, initiative, intuition and tact. He needs to know where to secure help; the requirements of every position; the characteristics of applicants and those of his fellow workers.

It is obvious that if an organization hiring in quantity selects a man of unusual ability as employment manager, smaller organizations should not entrust the hiring of help to a man of mediocre ability. Therefore, if we are to have a selection of employes, we must centralize employment in the hands of some one of real ability and vision.

5. *Job analysis.*—Without an intimate knowledge of the work to be done, the person responsible for hiring cannot hope to achieve the best results. Job analysis involves a determination of all the essential details of each specific job with a view to selecting the person most suitable for its proper performance. Job analysis ascertains the amount, the speed, the character of the work and the conditions under which the work is to be done.

In smaller offices it may appear that job analysis is unnecessary. But even here the very act of setting down in black and white the requirements of each job will often serve to clarify many debatable points which otherwise might hamper the office work.

6. *Job specifications.*—A job specification, resulting from the job analysis, shows in detail the physical requirements, the minimum education and the essential qualifications that experience has proved essential for the successful handling of the work. With these facts at his command, the person hiring is working with something definite. Moreover, such a specification obviates the necessity of repeating the discussion each time a similar position is to be filled. It serves to prevent misunderstandings, both as to pay and to duties, and above all helps to stabilize a working force.

The following specification for the position of stenographer illustrates what job specification involves.

(a) Age; 18 to 25.
(b) Education; At least three years High School Training, High School graduate preferred.
(c) Experience; At least six months.
(d) Essential qualifications:
    1. Touch typist (Speed equivalent to 800 lines a day).
    2. Stenographic speed equivalent to one hundred words a minute.
    3. Accurate.
    4. Adaptable.
    5. Good hearing.
    6. Personal neatness above the average.
    7. Pleasing personality above the average.

(e) Salary: $18 a week maximum.
$14 a week minimum.

7. *Sources of help.*—Proper selection requires that the person responsible for hiring be thoroly familiar with all the possible sources of help and know what sources are best for each different class of help required. Generally it is not wise to rely entirely upon one source of help. Experience usually shows that at times one source is better than another. In this connection, if the facts are available, it will prove profitable to analyze the employment records with a view to determining from just what sources your help has been obtained in the past. This analysis will indicate what sources have proved most profitable in the past and will also serve as a guide in the future.

The sources of help fall into the following classes: employment agencies, recommendations of employes and friends, advertising, schools and churches, and the concern's own application file.

8. *Sources of help—agencies.*—Employment agencies offer a very convenient source from which to secure employes. Reliable agencies usually refer only applicants that are reasonably worth interviewing. The agency is particularly effective if personal relations are established so that there is a clear understanding of what the client's requirements are. This can be accomplished by visiting the agency in person and if possible by getting a responsible representative of the agency to visit your office.

Many organizations rely entirely upon the agencies for their help and find the plan quite satisfactory. Those agencies which charge employes for their services are sometimes over-zealous in their desire to place people. If this source is relied upon entirely the advantages of a wider selection will be lost. Free agencies are usually a little less careful in their selection but they furnish a source of help that is worth while keeping in touch with.

9. *Sources of help—employes and friends.*—Trustworthy employes are often glad to recommend persons for employment. The Guaranty Trust Company of New York, for instance, secures the majority of its employes thru the recommendation of present employes. The American Tobacco Company also receives a large number of new employes thru the efforts of previous employes. It must not be overlooked, however, that this system must be used carefully in order to avoid fostering nepotism and creating ill feeling in case the person recommended is rejected.

The friends of an organization will frequently suggest applicants. For more important positions this source can often be used to good advantage. Rank and file workers recommended thru this source are not usually as satisfactory as similar workers brought in by employes because in suggesting this type, the outsider usually gives little thought to the caliber of the individual and is frequently guided by desire to do some one a favor. Of course no hard and fast rule can be laid down in this respect but it is well to realize the dangers incident to this method of securing employes.

10. *Sources of help—advertising, etc.*—Advertising is usually less effective in furnishing rank and file workers than the preceding sources mentioned. This is only natural because in advertising you have no one recommending the applicant. Advertising in the daily press or in technical or trade journals for applicants for more technical positions is often decidedly profitable. Care should be exercised in the wording of the advertisement so that it should appeal to the type of employe desired.

Churches, schools and clubs are often able to provide good workers. This is particularly true of positions where experience is not essential.

A final source is the application file made up from applicants previously interviewed but not hired. It often happens, however, that many good applicants are placed elsewhere by the time the vacancy occurs. This objection becomes of less importance, of course, where the organization is one that offers unusual advantages and still attracts the former applicant. In this case it may prove very desirable to develop this field.

11. *The interview.*—The interview is the first step in the actual hiring of an employe. It is an exceedingly important step since, if properly handled, it affords a splendid opportunity to size up the applicant.

By means of the interview the person hiring should determine upon a mental and moral rating for the applicant. He should take into consideration, in determining upon the mental rating, the dress, general appearance and attitude of the applicant. For instance, the condition of clothes, hair, teeth, nails, etc., are indications of personal habits. The attitude of the applicant is indicative of sincerity, capacity for development, and general ability. Careful observation of the eyes and face of the applicant should give the interviewer a fairly reliable indication of the moral rating of the applicant. Of course allowance should be made for nervousness on the part of the applicant. If he is not able to make a satisfactory first impression it is rarely wise to add him to the force.

During the course of the interview the interviewer should ask himself certain questions:

Is the applicant the best that can be secured under existing circumstances?

Has he the necessary ability, character, personality, education and health?

Is he capable of development in this particular position, or in the one to which it may lead?

12. *The application blank.*—The application blank is helpful in deciding whether or not an applicant is qualified to fill the position for which he is applying. It should be used in conjunction with the interview and when so used serves as a check against the impression gained from the interview. At the time of the interview there may be no vacancy which the applicant is qualified to fill. The interview will be time wasted unless the application blank be filled in

with the definite record of the applicant, to be filed away and referred to at a later date when such an opening occurs.

Opinions differ as to what questions should appear on the application blank. Generally speaking, it is better to have too much information about an applicant than too little. In a large office where considerable interest is taken in the welfare of employes, intelligent action is often based on the information gleaned from the applications. A man who is seeking work is willing enough to give information concerning himself. When he is once employed, he is sometimes antagonistic to further detailed questioning.

The Committee of Employment Plans of the National Association of Corporation Schools has ascertained some interesting facts on the subject of questions appearing on application blanks. The following information was secured from a number of organizations as to the questions asked on their application blanks.

Question asked	Percentage of those who asked that question
Previous employment, general	100
Age	97
Name of former employers	97
Duration of employment	94
Nature of work	94
Married or single	92
Reason for leaving	92
References	92
Scholastic education, general	89
Drinking	87
Do you look up references	84
Health, general	84

Question asked	Percentage of those who asked that question
Present health	84
Qualification for clearly defined position	84
Mental attitude towards advancement	82
Pay during previous employment	79
Past health	76
Definite desires	71
Natural aptitudes, indicated by studies	66
Scholastic standing	60
Habits, general	60
Definite plans for advancement	60
Weight	58
Ideas as to relative importance of money	58
Height	55
Home environment	55
Parental supervision	55
Ultimate aims	53
Physical examination	45
Smoking	45
How previous employment was obtained	39
Line of descent	37
Hours of work, previously	37
Financial obligations, general	37
Reasons for debt, if any	37
Church	32
Societies	32
Plans for meeting financial obligations	29
Social standing, general	29
Clubs	24
Texture	21
Progress made in society	21
Athletic diversions	21
Complexion	18
Color of eyes	8

In using the application blank it is well to explain to the applicant that the questions are not asked out of idle curiosity but for the best interests of all concerned. The applicant should be left in perfect freedom in answering the questions. The failure to answer certain questions often serves as an excellent side-

CONFIDENTIAL APPLICATION FOR EMPLOYMENT

You are not only judged on this application, but it is kept as a permanent record of you if employed. Please fill it out with this point in mind.

Date_______________

Name (in full) ____

Address (in full)_________________________ Phone_______________

Position applied for?_________________________ Salary expected?_______________

Where born?_______________ Date?_______________ Living with parents?__________

If not, why not?_________________________ With whom?_______________

Married?_______________ How long?__________ Number of children?__________

What is your father's name?____________________ Nationality?_______________

What is your mother's name?____________________ Nationality?_______________

Are you free from all duties which are likely to interfere with your duty to the Institute, should you be employed?____

-EDUCATION-

State your education, (beginning with primary school), giving dates, length of time in each school, and whether or not you graduated____

____

____

____

____

In school, what studies did you like best?____________________________________

_______________ What least?____________________________________

2

PREVIOUS EMPLOYMENT AND REFERENCES

(Give in chronological order beginning with most recent position.)

Employer	Address	Business	Position Held	Term of Employment	Salary	Reasons for Leaving

Personal References: — Please give the names and addresses of at least two persons of good standing, to whom you are not related and by whom you have not been employed.

____

____

____

- GENERAL -

Have you any friends or relatives in this office?________ Who?________________

Who recommended you to us?________________

What kind of work do you like best?________________

Are you qualified to do any other work than that for which you are applying?________

What? ________________

If you could have any position you wished for, what would it be?________

____

How do you spend your evenings?________________

Are you a member of any athletic, social or church organization?________

What are they?________________

How often do you attend?________________

Do you engage regularly in any athletic sports?________

What are they?________________

Have you any hobby such as music, dancing, painting, drawing etc.? ________

What is it? ________________

Is there anyone dependent on you for support?________ Who?________________

Have you a savings account?________ What bank?________________

Remarks: ________________

____

____

EMPLOYE'S APPLICATION RECORD — (Continued No. 3)

(This page is to be filled out by the interviewer)

ANALYSIS

The interviewer should mark every applicant with regard to each of the qualities listed below. Obviously all these qualities are not equally important. Their relative importance depends in part on the work for which the applicant is being considered. For convenience use the following scale.

1. - Nearly perfect
2. - Good
3. - Above the average
4. - Average
5. - Below the average
6. - Deficient

1 - General health ______________
2 - Personal neatness ______________
3 - Good memory ______________
4 - Carefulness ______________
5 - Accuracy of observation ______________
6 - Accuracy of recording ______________
7 - Ambition ______________
8 - Cheerfulness ______________
9 - Quickness of bodily movements ______________
10 - Quickness of thought ______________
11 - Sincerity ______________
12 - Pleasing facial expression ______________
13 - Pleasing voice ______________
14 - Reasoning ability ______________
15 - General education ______________
16 - Business education ______________
17 - Office experience ______________
18 - Executive experience ______________
19 - Ability to talk well ______________
20 - Attention to details ______________
21 - Courtesy ______________
22 - Truthfulness ______________
23 - Enthusiasm ______________
24 - Energy ______________

RESULT OF INTERVIEW

Hired to begin work in ______________ Department

as ______________ on ______________ at $ ______________ a week

(If not hired state reason) ______________

____

____
Interviewer

light on the ability and integrity of the individual. The care with which the application blank is filled serves as a measure of the applicant's qualifications as to neatness, accuracy, exactness and power of expression. Employes cannot be properly placed nor can their capabilities be properly developed unless their past history is sufficiently known. The information on home conditions indicates whether it really is to the applicant's best interests to accept the position. Previous experience throws light among other things on the ability, ambition and loyalty of the applicant. Certain questions are introduced to check the mental grasp of the applicant. For instance, "In school what studies did you like best and what least?" "If you could have any position you wished for, what would it be?" The answers to such questions, checked against the position for which the applicant is applying, and against his general appearance, prove helpful in determining the mentality of the applicant.

13. *Employment tests.*—As an aid to proper selection numerous tests have been developed. These include tests as to ability, attitude, character, education, training and suitableness for the actual position in question. A detailed discussion of various tests appears in the following chapter.

While much desirable information may be secured by a study of what has been done in this field in the last few years it is well to realize that no test is infallible, and that tests should not be relied upon to the exclusion of other methods if proper selection is to be made. From the standpoint of the average business man, probably the best results are obtained by basing all vocational tests on the work actually done in the office. Moreover, the exhaustiveness of tests should always be in relation to the importance of the position. Due regard should be had to the fact that 80 per cent of those to be tested do not earn one thousand dollars a year.

14. *References.*—As a final check on selection, references should be secured both from former employers and from persons known by the applicant other than employers. These references should be secured either while the applicant is under consideration or if there is not sufficient time then immediately at the time the applicant is hired.

References from people other than former employers must be accepted on their merits. As a rule, they demand a liberal discount. In most cases the real value of this type of reference is to impress upon the applicant the fact that the organization is very careful in the selection of its employes.

References from former employers, however, are frequently of decided value. This is particularly true of late for the modern tendency on the part of employers is to give references that actually tell the truth concerning former employes. In this connection many concerns refuse to give general references since they carry little if any weight.

If an employe has been dishonest, insubordinate, or wholly unsatisfactory it is unethical to give a general reference ignoring this fact. Furthermore, refusal to give reference to unreliable employes goes a long way toward preventing employes from committing questionable acts.

The following information should be sought from former employers:

(a) How long was the individual in your employ?
(b) In what capacity?
(c) What is your opinion of the service he rendered?
(d) Why did he leave you?
(e) Would you recommend him for a position of trust?

The answers to such questions as these furnish not only a check on the truthfulness of the applicant but also help to verify his ability and trustworthiness.

In requesting a reference from a person other than a former employer ordinarily all that is desired is a statement as to character and ability.

REVIEW

Show why a careful analysis in the selection of office employes is advantageous when considered from an investment viewpoint.

How would you provide for an employe who has worked hard to master his position, but who has not materially succeeded?

State the qualifications that are necessary to a successful employment manager.

Determine the best sources of supply for office labor in your field.

Why do many employes, selected because of past records, fail to make good in their new positions?

CHAPTER VII

EMPLOYMENT TESTS AND RECORDS

1. *Scientific selection.*—In recent years persons interested in the subject of employment have given much thought and study to the possibilities of scientific selection. This has been done in an effort to eliminate errors in selection by means of mental and physical tests designed to measure the ability and the aptitude of the applicant.

There are those who claim that it is possible to measure accurately mental ability and that it is also possible by means of certain tests to determine accurately just exactly what kind of work a person is best qualified to do.

The average individual realizes how complicated human nature is and cannot help but feel that these claims are somewhat extravagant. Yet familiarity with this new development in the field of hiring is decidedly worth while. There is no question that hiring can be made more scientific. One has simply to keep in mind, that because of the human element involved, these new methods cannot be perfect in their application.

2. *Physical examination.*—There is much difference of opinion as to the necessity and advisability of

physical examinations for employes. Under ordinary circumstances, there is much to be said in favor of the physical examination both from the standpoint of employer and employe. Employers who do not approve of physical examinations fail to take into consideration the number of days lost on account of illness and the attendant disorganization of work. An investigation reveals the fact that absence from work on account of physical disability averages about two weeks each year. The value of determining physical fitness on entrance becomes apparent at once. Two weeks' absence per year means four per cent efficiency directly lost, perhaps two per cent more indirectly. If this lost time could be reduced by one-half, the resultant gain would be very appreciable.

The presence of incipient tuberculosis or heart disease cannot be recognized by the employment manager at sight. The applicant who may be affected by some such physical defect may be assigned a place that is entirely unsuited to his condition. Some employers, who recognize their obligation to their employes over and above the weekly wage, insist wisely upon periodical physical examinations. They desire loyalty and permanency in their force, and they are willing to pay the price. They hope to prolong the usefulness of employes trained in highly specialized duties. In assuming such responsibilities for the future, an employer legitimately protects himself against the possibility of taking on physical wrecks or allowing incipient disease to go unchecked. This can be fully achieved only by means of a physical examination at entrance and periodically thereafter.

As a rule, applicants dislike physical examination. It is often regarded as an undue intrusion upon their privacy. Frequently there is the fear that the examination may exclude them from the desired position. They fail to realize that such exclusion may be for their own ultimate good. Physical examination is not solely for the purpose of debarring the weak. It serves to indicate the kind of work which the employe may do with least injury to his health. While the number of actual rejections is generally small, it will be found that an appreciable percentage of all applicants are in need of medical attention and advice. Periodical examination of employes generally improves the physical condition of the force and thereby lessens the number of days lost to the employer on account of illness of employes. For the employes, it substantially reduces the cost of doctor's bills, detects dangerous tendencies and minimizes the risk of contagion.

How far the examination should go depends upon the nature of the work and the advice of the examining physician. The doctor should inform himself as to the existing working conditions. He may do this either by a personal inspection of the office, or by means of work specifications which sufficiently indicate the occupational dangers. Generally speaking, the scope of the examination should be based on experience with regard to the defects found in that class of work in which the employe is being placed and which should be guarded against. Medically they may apply to heart and lungs; surgically to enlarged glands and varicose veins, and generally to deafness, defective vision and bad teeth.

The Guaranty Trust Company of New York, for instance, requires all applicants to submit to a physical test prepared by the Life Extension Institute. It establishes a complete health history of the person and enables the company to know whether or not the applicant is physically fit for his work and, what is even more important, to know whether or not the new employe may be a menace to the health of others. All bodily conditions are measured according to set standards and graded "A," "B," "C," etc. None below the "C" stage is admitted to employment.

3. *Psychological tests.*—The aim of psychological tests is to measure native ability and intelligence, ascertain what an individual can do and discover and sift out incompetence. It is generally admitted that "completed investigations do not exist in this field" so that any psychological tests adopted should not be relied upon as conclusive evidence but only as an aid in deciding upon the worth of the applicant.

The range of such tests is extensive, and it is not always easy to choose the most appropriate type. If mathematical speed is required, a standard set of figures, the efficacy of which has been previously tested, may be submitted to the applicant. His time in doing the required work, compared with the average, is a fair estimate of his ability. If decision of thought is a factor in the day's work, the ability to answer questions that reveal such capability is tested.

Ability to concentrate may be determined by such a simple means as the elimination of certain figures or letters in a given amount of print. General memory may be estimated by submitting office rules for perusal and having answers to questions recorded after the lapse of a certain interval. General memory may also be tested by requiring names to be replaced in a definite order after they have been disarranged.

Testing the applicant's memory for facts is valuable where he has to meet strangers. This can be done in two ways. Arrange a series of photographs of prominent men with names attached and allow the applicant to study them for a certain period, after which disarrange them and let the applicant associate each name with the proper photograph. A simple test that has been used successfully is to show pictures of different classes of men; for example, four railroad presidents and four railroad brotherhood clerks. Ability to distinguish different types of men is the thing to be tested, in this case. Where many callers are to be received, such discernment is valuable.

The American Tobacco Company uses a few simple psychological tests in which the manager seeks to determine the mentality of the applicant. No regular or standard examination is given, but a few pointed questions are asked. The applicant's answers help to determine his general knowledge and his ability to comprehend and remember what he sees and hears. The following questions are typical of those sometimes asked applicants for ordinary clerical positions:

1. How many dozen in a gross?

(This is something any one ought to know, especially one who seeks to enter the mercantile field.)

Then this question is followed by one entirely unrelated in thought.

2. What number from which 16 is taken leaves 16?

(Of course this is not difficult to answer, but the speed with which one answers it will help to determine his power to comprehend.)

Now this question is asked:

3. How much would you bill a man who bought four dozen at $9.00 per gross?

(This tests the applicant's memory and his ability to associate ideas. If he associates it with the information just given in answer to the first question, he will immediately see that four dozen is one-third of a gross, and this will permit of a quick answer.)

Questions like the above afford the employment manager a good line on the applicant's mentality.

4. *Testing systems—graphology.*—While all test methods require a certain amount of special study to render them effective, this is particularly true of

graphology, the art of determining the numerous characteristics from handwriting. Such tests will not be extensively or effectively employed until employment managers have acquired a more complete knowledge of graphological principles. It is claimed by those who have made a careful study of graphology, that it enables one to detect mental deteriorations and addiction to drugs, as well as positive and desirable qualities.

5. *Physiognomy.*—The ability to determine a mans' characteristics from his facial expression is important—perhaps more important in enabling us to eliminate the unfit than to determine the fit. The face indicates not only a person's character but also his probable mode of life. It must be remembered, of course, that the character of most applicants is not fixed at the time of application, and the facial indications are therefore obscure. Yet such qualities as pugnacity and amiability are easily discerned.

6. *Character analysis.*—Much has been written concerning character analysis by the observational method. Such a test permits the observer to draw his conclusions from what he can "easily see" in the subject analyzed, with regard both to physical and mental characteristics. This test has been developed thru the study of biology and ethnology, and proficiency in its application is dependent upon aptitude and special study by the employment manager, for which time is not always available. Texture, form, color, size, structure, consistency, proportion, expres-

sion, are all systematically studied and the sum of such studies determines the place which the subject can fill.

The value of this method depends upon the discernment and shrewdness of the observer on the one hand, and the truthfulness of the applicant's appearance, on the other. If either is lacking, the result is unreliable.

7. *Moral qualities of applicants.*—In determining the moral qualities of applicants, the severity of the examination is governed by the demands of the position. First impressions, a personal interview, an examination of references submitted, are often sufficient to determine an applicant's moral qualifications. But in some positions of trust where money and valuables have to be handled, honesty is vitally essential. A frank, open manner and a straightforward way of answering questions are merely indications—not proofs—of moral rectitude; these are characteristics which the unmoral man seeks to affect. Ability to separate the true from the false comes only by experience. Integrity in a stenographer may not be so essential as in an office boy whose opportunities to pilfer and loaf are usually much greater.

8. *Employment records.*—In a small concern where there is little hiring and where the employer is in constant touch with his employes, extensive employment records are not necessary, but in an organization of any size employment records are exceedingly important. They lessen the chance of improper selec-

tion and furnish a means of knowing just how successfully hiring is being conducted.

9. *Employment requisition.*—The requisition for help originates in the department where the help is needed. The form used for requisitioning help is usually very simple, generally indicating the department, the date of request, the type of employe required, the date when the help is to be furnished, and the name of the person making the requisition. On some forms, information concerning the type of help needed is requested. In the more advanced forms of this type, a number indicates each job, whose full description is contained in a reference record kept in the employment department. Requisitions should be submitted early enough to allow for the best available sources to be searched.

After the requisition has been filled the stub attached provides the proper notification for placing the new applicant on the payroll.

10. *The application blank.*—The application blank has already been described in detail in the previous chapter. The value of the application blank from the standpoint of employment records lies in the fact that it furnishes the basis for the preparation of the employe's record if the applicant is hired. If he is not hired at that time it furnishes a permanent record of the interview, to be used when an opening occurs that the applicant would be qualified to fill.

11. *Rating of applicants.*—In many organizations first impressions of the applicant are registered on the

To................ Date................

HELP REQUISITION

Please secure for me a (permanent (temporary employe in accordance with the following instructions:

Position ....

Department ....

If temporary - How long?...................................

Approximate salary ....

Date wanted ....

Signed..........................

Hired on ....

Salary ....By ....

When the department head has approved the hiring of the applicant, fill in the attached stub and send it to the Accounting Department. Please return this form to the Office Manager together with the Employe's Application Blank to be filed in the Employe's Record Envelop.

To - ACCOUNTING DEP'T Date..................

Mr. - Miss ....has

been hired to begin work in the................dept.

on ....at ....per week.

Signed ....

application blank, particularly where there is no immediate prospect of employment. It is also valuable in measuring the subsequent development of the employe. This rating should be coded if made in the presence of the applicant and it should be comprehensive enough to indicate his true worth for future reference.

It is necessary to marshal the facts collected in some standard fashion. During the administration of Mayor Mitchel of New York, it was his custom to rate applicants for employment by the city according to the following scheme:

Results secured in similar positions	20
Results secured in other positions	10
Experience in similar positions	10
Experience in other positions	5
Training for similar positions	5
General fitness for position	15
General education	5
Character and reputation	15
Personality, age and physical fitness	15
	100

A method used by a large office and found to give good results is to require the interviewer to grade every applicant with regard to each of certain qualities which are listed on the blank recording the results of the interview. Obviously all these qualities are not equally important. Their relative importance depends in part on the work for which the applicant is being considered. In grading, the following scale is used:

1.—Nearly perfect
2.—Good
3.—Above the average
4.—Average
5.—Below the average
6.—Deficient.

12. *Employe's record.*—It is customary to make the vital information presented in the application a part of the employe's record. This eliminates any duplication of information. In the more highly developed schemes, there is entered on the employment form every fact pertaining to the career of the employe; in fact, everything that indicates his caliber. Here is assembled the information upon which promotion, transfer, demotion or discharge are based. Centralization of employment and record keeping makes all this possible, and no such question is decided except on the basis of the employment record. Provision is made for recording on this form all changes in salary, which proceed from the pay-roll department; all records of absence, lateness and overtime, which proceed from the timekeeper; and all periodic reports as to progress, which proceed from the office manager or his assistants. Finally, there is space for recording the date when employment is terminated, and the cause thereof.

The value of completing the record in respect to termination of employment, cause of leaving, and estimate of character, should not be overlooked. Such data will be useful at a future date when reemployment may be sought or references desired.

The Employe's Record shown in the exhibit on the following pages is printed on the front and back of a heavy 9½″ x 11¾″ envelop so that the application blank, letters, etc., can be filed inside.

As part of the Employe's Record it is well to include a photograph of the employe. In an organization of any size officers who do not come in daily contact with employes often know them by face but not by name. The photograph is often useful, therefore, in suggesting transfers, salary increases, etc., where the identity of the employe concerned is not definite to all involved.

13. *Revision of application form.*—Within the course of a year certain changes are bound to occur in the attitude and habits of an employe that ought to find their way into the employment records if these records are really going to serve as a guide in properly sizing up the employe.

For instance, if an employe has attended night school or has taken up some definite course of reading since he was hired, it is unfair to ignore this in judging the employe by the data contained in the employment records. The following will serve to indicate the scope and value of a Revision of Application Form.

January | February | March | April | May | June | July | August | September | October | November | December

Male
Female

Dead File
Active File

Employe's Record

Name ______ Born ______

Address ______ Phone No. ______

Living with Parents? ______ If not, why not? ______ With Whom? ______

Married? ______ How Long? ______ Number of Children ______

Education { Public School / Parochial School ______ Business School ______

High School ______ College ______

Previous experience (Enter in chronological order beginning with last position held)

Employers	Addresses	Business	Position Held	Term of Employment	Salary

Remarks ______

REVISION OF EMPLOYMENT APPLICATION

Is / Is not Attending night school—191 ______ 191 ______

Is taking up—191 ______ 191 ______

Is / Is not following definite course of reading—191 ______ 191 ______

Following outside activities other than those of the Institute—191 ______ 191 ______

Would like following position better than one now held—191 ______ 191 ______

Remarks ______

EMPLOYE'S RECORD

Started

Department

Position

Salary

Resigned / Discharged } Date Reason

Monthly Service Records

	MERIT AND DEMERIT						ATTENDANCE						SUGGESTION					
	191			191			191			191			191			191		
Months	Merits	Demerits	Bal.	Merits	Demerits	Bal.	Days Absent	Late		Days Absent	Late		Quantity turned in	Number Awarded Prizes	Am't of Prize Money	Quantity turned in	Number Awarded Prizes	Am't of Prize Money
								No Times	Amount		No Times	Amount						
JAN.																		
FEB.																		
MAR.																		
APR.																		
MAY																		
JUNE																		
JULY																		
AUG.																		
SEPT.																		
OCT.																		
NOV.																		
DEC.																		

Interviews

Remarks

CONFIDENTIAL REVISION OF EMPLOYMENT APPLICATION

In accordance with our desire to keep informed of any changes that may affect the interest of our employes, you are requested to fill in this blank carefully. When you have done so please return it to your Department Head.

Date
Name
Address (in full) Phone
Have you recently attended or are you now attending night school?
How long? Where?
What are you taking up?
Are you following any definite course of reading?
What?
Since joining the Company have you taken on any outside activities other than those described above?
What?
How do you spend your evenings?
Is there any one dependent on you for support? Who?
Have you adopted any systematic plan for saving money?
What?
Is there any position you would like better than the one you are now holding?
Why?
Give in detail the qualifications you believe you have for this position.
Remarks:

The majority of employes are willing to supply such information. The use of the application revision serves to bring home to the employes the fact that the employment records are intended to reflect in black and white the progress that they are making. It eliminates guess work and gives the employer facts on which to base salary increases and promotions.

Any change or any new information obtained from this Revision of Application Form should be posted on the Employe's Record.

14. *Turnover.*—One of the most valuable employment records is an analysis of turnover. Many organizations allow themselves to believe that their turnover is very low. If no figures are kept it is very easy to lose sight of the number of employes who have left during the year. Not only is an analysis of turnover an excellent check on improper selection but it also brings to light the need for certain remedies. It may be that the wage scale is too low, that promotions are not frequent enough or that working conditions are unsatisfactory.

During the last few years much attention has been directed to the loss involved in the frequent leaving of employes. In an article entitled "Hiring and Firing," M. W. Alexander of the National Industrial Conference Board calls attention to the fact that a high rate of turnover is not confined to factory employes.

This is a problem which few office managers as yet have attacked in any systematic way, tho industrial concerns which have gone into the subject have reduced their labor turnover in some cases from an average of 200 per cent to about 50 per cent; that is, they now hire only one man where formerly they hired four in order to maintain their force. Few figures are available in offices to indicate what the average turnover is. If the figures are even approximately as large as those in the industries, the problem of reducing the turnover is well worth undertaking.

An office of one hundred employes may have to take on during the year one hundred new employes in order to maintain its force. By adopting those plans which have proved to be successful in industry, this figure can be largely reduced. According to Mr. Alexander, the average cost of hiring and training a clerk is about $30. At this rate, the expense occasioned by this labor turnover is $3,000 per year. It could no doubt be reduced to $1,500 per year, even in such a comparatively small office.

This chapter and the preceding chapter have outlined improved methods of selecting employes. But turnover cannot be reduced by attention to any one factor. Success in this field depends upon the study and adjustment of all relations with employes, whether they concern selection, salaries, fair treatment, promotion, good working conditions, or various welfare activities. These matters are discussed later in this text.

The lowest rate of turnover will be brought about and maintained by means of a centralized employment office, a trained employment manager and a definite and consistent policy with regard to the treatment of employes, and the maintenance of suitable records for guidance in handling the problems which arise. In smaller offices a clear conception of the amount and causes of turnover combined with the working out of plans to remedy unsatisfactory conditions will prove effective in meeting the problem.

15. *How to figure turnover.*—There is so much question as to the right method of figuring turnover that the following formula, with three examples of its application, is given as being helpful in determining whether or not an organization has a normal turnover.

A—Average number of men employed during the year.
B—Number of men on payroll at the beginning of year.
C—Number of men on payroll at the close of year.
H—Number of men hired during the year.
L—Number of men leaving during the year.
T—Labor turnover.

With the above symbols to indicate the various figures involved, the following equation may be worked out to give an organization's turnover (or T, the unknown quantity). It is first necessary to find L (the number of men leaving during the year). This figure equals H, the number of men hired during the year, minus the difference between C and B, when the payroll is increasing, and when it is decreasing this figure is the equivalent of H plus the difference between B and C. The turnover may then be found by dividing L, the number of men leaving during the year, by A or the number of men employed on the average during the year.

The following three examples indicate how the equations are applied:

	Increasing Payroll	Decreasing Payroll	Stationary Payroll
A	380	310	400
B	410	410	400
C	525	300	400
H	600	50	92
L	485	160	92
T	127.6%	51.6%	23%

In the case of the first company, the figure L is found as indicated by taking H (600) minus the difference between C and B (115). L is accordingly 485. This figure divided by 380 (A), according to the formula indicated, gives a percentage of turnover of 127.6 per cent (T). In the case of a decreasing payroll the equation also works out as indicated. L equals H (50) plus the difference between B and C (110) or 160. This figure divided by 310 gives a turnover percentage of 51.6.

To obtain an accurate average number of employes, add the numbers actively employed at the beginning of each month and divide by 12.

16. *Turnover statistics and their use.*—If an analysis of turnover is to be of true constructive value and indicate any abnormal conditions that need correction, it must show the causes for departures. While causes presented may vary in great detail, ordinarily it will prove sufficient to group them under these headings:

Better position
Dishonesty
Dissatisfied
Giving up business
Ill Health

Incompetence
Insubordination
Married.

If together with this analysis there is presented a history of each employe who leaves, showing when the employe started, by whom he was hired, the positions held, the salary and increases received and any special explanatory remarks, it is possible to keep in very close touch with conditions and to see the effect of any remedies tried.

REVIEW

Of what advantage to the employer is the physical examination of employes? To the applicants themselves? To other employes?

What tests would you demand of applicants for stenographic positions?

How do you figure the percentage of "turnover" in office employes?

Why should periodical tests be made of the employes' progress and ability?

What should be contained in the Employe's Record? How may such a record be kept up-to-date?

CHAPTER VIII

TRAINING

1. *Value of training.*—During the last few years employers have realized the fact that every worth-while employe has a potential value entirely aside from his immediate, observable value. Training of employes affords the employer a chance to profit by this potential value.

Unquestionably a proper system of training not only secures a more intelligent performance of duty but it also inspires ambition and strengthens character and good business habits. Furthermore, by developing employes for more important work, training provides experienced men and women capable of assuming the higher positions as the business expands.

The National Association of Corporation Schools has determined from a questionnaire that no organization once having installed a definite training plan has given it up. That fact presents a clear indication of the value of training.

2. *Scope of training.*—There are three main divisions of office training.

The first division involves the training of the new employe for the purpose of enabling him to work intelligently in his new employment. This is the sort of training to which the office manager must give attention or suffer the consequences in poor work and frequent changes in personnel.

The second division of training involves the perfection of employes in their daily tasks.

The third division involves the preparation of employes for taking over bigger responsibilities. If employes are not trained for advancement within the concern, and the higher positions are filled from outside the organization, the *esprit de corps* of the office must be considerably weakened.

3. *The training plan.*—Certain precautions are necessary in the adoption of any plan of training. It may be granted that some sort of training is applicable to every office, yet there is always one kind that is more applicable than another to each individual case. A school, with a properly qualified teacher, is rarely practicable in an office employing less than one hundred persons. Frequently much larger organizations get along with a less ambitious program. Consideration must be had for the numerical strength of different classes of employes, the type and variety of occupations, the age of employes, their sex and many other factors. An intelligent recognition of all these considerations eventually determines the value of the whole project.

The fact that it is not advisable to instal an elaborate training system should not militate against the development of some kind of training work. In small organizations all the training activities may be carried on by the employer himself. The general principles of training will be the same as tho the organization were large enough to have a completely equipped training school.

4. *Centralization of training.*—It is advisable to have the responsibility for all training centralized. In this way the various educational activities are part of a definite plan. In many organizations the educational work is in the hands of a committee composed of officials of the organization.

This plan makes the handling of the work more economical and less formal. Furthermore, it tends to overcome the danger of training work becoming too theoretical.

In this connection it is interesting to note how the National City Bank of New York, which has developed what is probably the most extensive educational system of any industrial or financial institution, handles its training work. The Educational Committee composed of seven bank officials is directly in charge of all educational activities. Responsible to this committee is the educational director who is in active control of the work.

5. *Operating the training plan.*—The National City Bank endeavors to have all instruction carried on by members of the bank organization. There are twenty-three "inside" instructors on the staff, many of whom are officers of the bank. The classes in French and advanced business English are the only ones conducted by outside instructors. The biggest men in

the organization are cooperating with the educational director to make the work really accomplish its purpose.

Again, in Lord and Taylor's department store, which has developed an extensive training plan, all of the instructors are from within the organization.

The point to be observed from these illustrations is the fact that the adoption of educational plans need not involve an elaborate staff and a heavy increase in overhead expense. What is involved is the fact that it is "penny wise and pound foolish" to devote all of the organization's time to production and none to definite methods of improving the ability of the producers.

It will always be found more profitable wherever possible to conduct the various training activities on company time. In this way it is possible to insist upon attendance and a certain standard of results on the part of those attending the training classes. In some organizations a division is made with the result that training of new employes and training for perfection in the daily work are conducted on company time, but training for promotion is conducted wholly or in part on the employes' time.

6. *Methods of training new employes.*—In training new employes the goal in view is to acquaint the new employe not only with the principles and details of the work he or she is going to handle but also to instill a conception of the spirit and principles of the organization as a whole. It is only in this way that a new employe can gain a firm foundation on which to build

any kind of real success. In the following sections the methods of securing these results are outlined in some detail.

In arranging the training work care should be exercised that the employe is not given more than can be readily digested. If the training work is broken up by oral questioning and ample period for review there is less danger of the employe becoming swamped.

Care should be taken also to avoid any tendency towards confining the training to abstract principles. Wherever possible, information should be given in the form of exhibits or pictures, because such equipment always adds human interest to the lesson.

7. *Training in fundamentals of the business.*—The first step in the training of a new employe is to impart a knowledge of the fundamentals of the business. The starting point may well be an inspirational history of the enterprise together with an outline of what the organization as a whole is trying to accomplish. Particular stress should be laid upon the ideals of the organization with regard to service to the public and the treatment of its employes. This stage of the training may be made more interesting by showing exhibits of the various products with a brief description of how they are made. Pictures of the executives in charge of the enterprise together with a few words about their activities can also be used effectively in awakening the interest of the newcomer. The first part of the training may well be concluded by a trip

thru the office conducted with the idea of awakening the enthusiasm of the new employe and also with the idea of making him feel that he is already a part of the organization.

Those who have charge of the initial training of new employes should not overlook the fact that it is natural for a beginner in coming into an organization of any size to be ill at ease. If an effort is made to overcome this feeling at the start the training will be more successful and the employe will enter into his work with more enthusiasm.

8. *Training in fundamentals of position.*—After the foundation is laid as described in the previous section, the employe should next be made to understand the work of the department into which he is going and the relation of that department to the rest of the business. It is only in this way that the new employe can have any conception of the importance of his work. If the employe is not brought to see that his work really is of vital importance, what inducement is there for him to give his best from the very start?

This point, frequently overlooked, lies at the root of a great deal of the trouble in getting efficient results from clerical help.

This stage of the training can be illustrated by means of an organization chart which shows the new employe how he is to fit into the work of the whole organization. If the organization is a large one special emphasis should be laid upon the part that the individual plays in the success of the business as a whole. This can be brought home in many ways. For instance, the new clerk can be shown how the mistakes of an incompetent clerk can injure the good will of the organization.

9. *Training in actual position.*—The third stage in training of a new employe involves a thoro explanation of the actual work he is to do. As a basis for this training, his duties and the manner of performance should be set down in black and white so that they may be carefully studied. Too much emphasis cannot be laid upon the need for a new employe to have a clear conception of just what his work involves and just how he is to do it. Otherwise he is sure to make mistakes that may prove costly and that may lead to the conclusion that he is incompetent when, as a matter of fact, he has not been properly instructed.

The employe should be quizzed frequently during this period of training in order that the instructor may be sure that the employe is absorbing all details. Frequent use of illustrations at this period of training will reduce the chance of confusion.

10. *Practice work.*—After the three stages of training described above have been covered it is a good plan to let the new employe begin the work he has been hired to do. This work should be done under the observation of the instructor and should not be work that will actually be used. In this way serious mistakes due to nervousness or lack of preparation on the

part of a new employe, are not costly and the instructor is given a definite opportunity to determine whether or not the newcomer is really equipped to take up the responsibilities of his position.

In this connection, the American Telephone and Telegraph Company in the training of its new operators uses what is known as a "Demonstration Board." This board is not connected with the public but at the same time is so equipped that the newcomer is given a thoro training in the fundamentals of handling an actual board. At this board, pupils are instructed how to hold their bodies, heads, arms and fingers while at work, in such a way that the best service results. The "Demonstration Board" also allows the instructor to give the pupil the elementary practice in interpreting lamp signals and the handling of equipment.

11. *Inspection of work of new employes.*—When the employe has completed the preliminary training and has proved himself possessed of a sufficient knowledge to warrant his starting actual work he should be allowed to go ahead. The training period is not completed, however. In actual practice it is very likely that an employe will be weak in the knowledge of certain points essential to his work. It is therefore a good idea to have a definite follow-up plan for new employes. This may provide for an interview with the department head at the end of a ten-day period in which he can determine the following points in regard to the new employe:

1. Does the new employe understand the work in every particular?
2. Is he interested in it?
3. Is the work being turned out in a satisfactory manner?
4. Are there any points in which he should be trained in more detail?

If the new employe proves satisfactory at this time no further training is necessary. If on the other hand the employe needs further training it should be given, and ten days later the department head should again question him in order to be sure that this second training has accomplishd the desired results.

12. *Training for better results.*—The second division of training concerns itself with the improvement of employes in the actual work they are doing. This training falls into two classes: First, training looking to the general improvement of the employe; and second, training that has in view the improvement of the employe in some specific task.

The value of this type of training lies in the fact that the average employe, unless he is constantly stimulated, tends to fall into a rut.

13. *General training for better results.*—The general training of employes may be carried on in many ways. Lord and Taylor's department store, for instance, holds a series of classes looking to the general development of their employes. Among these classes are included the following:

Business English for office and sales employes.
Arithmetic—special work in percentage, addition and subtraction for sales girls and cashiers.
Penmanship—for sales girls—this class is called together to discuss illegible sales slips. Girls are urged to print all names and addresses.
Civics—this class was established at the request of women employes who were interested in suffrage. It is now proposed to extend it to all employes in order that they may become familiar with the workings of our government.
French—Courses were held for all employes who were preparing for service abroad. This class has been discontinued.

A very comprehensive and valuable series of courses has been developed by the National City Bank for the general training of its employes. In the arrangement of the classes, the director has taken into consideration the age and previous experience of members.

A preparatory course has been developed for the benefit of all boys and girls in the bank's employ who are under seventeen years of age. Attendance is compulsory. It gives these young employes an opportunity to continue that elementary education without which they could never hope to advance in the banking business. The course covers a period of two years. Instruction is given in the following subjects; the nature of the various courses is evident and needs no further explanation.

First year	*Second year*
Arithmetic I	Arithmetic II
English I	English II
Penmanship I	Penmanship II
Office Practice I	Office Practice II

Instruction in these classes is made as practical as possible in the effort to make the members better business men and women. A "Preliminary" certificate, signed by the president of the bank, is awarded to those completing this course.

A two year course in Junior Banking has been developed for employes over seventeen years old, who have had no previous banking education or experience. This course also presents an opportunity for the ambitious employe's general cultural advancement. French and Spanish are both offered. There is an incentive for the study of foreign languages here since the bank has so many foreign branches and holds out such splendid opportunities to its employes. The Junior Banking course covers the following subjects:

First year	*Second year*
Practical Banking I	Practical Banking II
Bookkeeping I	Bookkeeping II
Business English	Speed Mathematics
Spanish	Business English
French	Spanish II
	French II

After members have completed the Junior Banking course, a "Junior" certificate is awarded.

It may, of course, be said that the illustrations cited are too elaborate for use by the average organization. There is no organization, however, which cannot adopt the principle involved. Employes can be encouraged to attend evening schools; simple lecture courses can be given by the executive officers of every moderate sized concern. If large organizations find it pays to spend time and effort in developing their employes it certainly is to the interest of smaller concerns to work out modified plans of similar training.

14. *Specific training for better results.*—In addition to general training for better results described above, many progressive organizations have taken advantage of the opportunities offered to increase the value of employes thru training them in the better performance of their specific tasks. The following classes conducted by W. R. Grace and Company of New York will serve to illustrate the scope and value of this type of training:

TALKS ON ACCOUNTS. This series of lectures covers the bookkeeping and accounting systems of W. R. Grace & Company. The talks include discussion on General Accounts, Produce Accounts, Nitrate Agencies Accounts, Agencies Accounts, and Outward Shipping Accounts. These talks are under the supervision of the assistant treasurer. Heads of various departments are called upon for talks. Attendance is obligatory upon members of the accounting department.

STENOGRAPHY. All stenographers of the house are given an opportunity to improve themselves in taking dictation and in reading notes correctly and accurately.

BUSINESS ENGLISH. This course is given principally for the benefit of stenographers, in order to improve their command of English, so that they may take dictation more accurately and correctly.

SHIPPING DOCUMENT COURSE. This is a course covering the various documents used in shipping; such as bills of lading, invoices, export licenses, and the necessary details which accompany the making of shipments. It gives the members of the class a splendid opportunity to become familiar with the terms used in shipping.

15. *Training for advancement.*—Directly in line with the idea of training employes to do better in their present work is the training of employes to assume bigger responsibilities. Employes who have been with the organization for years, and have grown up with it, are equipped with a knowledge of the work, the policies and the ideals of the organization that an outsider can never attain. It is exceedingly valuable to an organization if the higher positions can be filled with such men. From this point of view, therefore, it is decidedly profitable for an organization to develop its people.

We must also consider the value of adopting the policy of making promotions from the inside instead of going outside the organization when a vacancy of any importance occurs. Concerns who do not adopt the policy of making promotions from the inside cannot hope to maintain a force of ambitious, capable workers. And yet this is the only type that can build up a live organization. Most men will admit that, theoretically, higher positions should be filled by promotions from the inside. If proper methods are in force for training employes with a view to developing them for bigger responsibility, this policy of promoting from the inside can be made a practical one.

16. *Field of training for advancement.*—There are many possibilities in training employes for advancement. For instance, a bookkeeping class can be conducted for junior clerks that will equip them to become bookkeepers; typists may be developed to become dictaphone operators; proofreaders may be trained to become correspondents. It does not require an elaborate training plan to develop employes along such lines and the fact cannot be disputed that the organization profits when it is able to develop its people in this way.

Examples of what is being done to develop higher grade employes for more responsible positions are indicated in the following taken from the training plan of the National City Bank.

A course in Senior Banking is given for the benefit of employes over nineteen years old. Employes who have completed the Junior Banking Course or those who have had previous experience in banking which is approved by the educational director, are eligible for membership. There is a wide variety in the type of studies pursued. They deal with problems of the National City Bank at home and abroad. Instruction is carried on by the heads of the various departments whose work is being explained. No limit is placed upon the period of time which members may take to complete the course. Some subjects may be covered within a year, others take two or more years. Those employes who complete the work in six subjects in this course receive the regular graduate diploma. The following subjects are offered:

Practical Banking I and II
City Bank Organization
Commercial Geography
Credit
Commercial Law
Foreign Exchange I and II
Foreign Trade
Loans, Bonds and Investments
Spanish
French
Russian
Italian
Portuguese.

A graduate course has been arranged for officers, division and department heads, and others who have received the Graduate Diploma. The work is of an advanced nature. A class in Finance was conducted by Mr. Vanderlip once a week. Members are urged to submit questions pertaining to the business of Finance. Mr. Vanderlip used his valuable experience in outlining and answering the problems with which his assistants were confronted. In other classes the best practice in Banking is discussed. Following is a list of opportunities for study offered to the members:

Finance
Advanced Banking
Foreign Exchange III
Spanish
French
Italian
Russian
Portuguese

17. *Outside courses.*—Many of the more progressive concerns, realizing that the organization as well as the individual profits from the development of its personnel, are sharing in the expense of educating their employes along more advanced lines. Selected employes are permitted to attend certain university courses or to take up extension courses. The fact that money spent in this way is considered a most profitable investment is additional proof of the value of training employes.

REVIEW

Why is a course of training as profitable to the employer as it is to the employe?

State the three main purposes for which office training may be conducted.

What is the best method of instruction for training employes when conditions do not permit the services of regularly trained instructors?

Ought training classes to be held during office hours or on the employes' own time?

Outline a course suitable for the training of some particular clerk, which will help him in his present work; which will enable him to take a position of higher responsibility.

CHAPTER IX

STIMULATION OF EMPLOYES

1. *Meaning and value of stimulation.*—Stimulation is an effort to create in the mind of an employe the desire to do his or her best. This result can not be accomplished thru fair pay alone nor can it be accomplished thru the use of hit or miss plans to get greater results out of the people. Getting employes to give their best can only be effected thru the adoption of a definite clear-cut policy which recognizes the fact that the welfare and happiness of the employes are inseparable from the success of the organization. With this policy as the basis of all action, there must result the building up of a spirit of mutual interest which stimulates every worth-while employe to give his best to the organization.

It is obvious that if employes have been properly selected and trained and that if the large majority of them are giving their best to their work the organization possesses an important asset. Stimulation tends to impress upon every employe that he or she is really a valuable factor in the organization. It visualizes the responsibility entrusted to each employe and thus acts to overcome the tendency toward carelessness, indifference and thoughtlessness. These are the basic causes of inefficiency on the part of the rank and file.

2. *Principles of stimulation.*—All successful methods of stimulation must operate with the employes' point of view constantly in mind. In other words it is not enough that the employer be convinced of the gospel of the square deal. He must also convince the employe of his sincerity. Employes are prone to judge with considerable shrewdness the motives underlying any move, and no insincere plan can have any lasting effect.

It is also important that the methods of stimulation be entirely practical, that is, within the intelligence of those to whom they are to be applied. Furthermore, they must be explained and advocated on the basis of their advantage to all concerned.

The methods described below will serve to illustrate clearly the scope and value of stimulation. It should operate to improve the attitude, the conduct, and the work of employes. It is important to realize that no one method will accomplish all these results. In fact, it is an important principle of successful stimulation that one must adopt a number of methods to meet each need.

3. *Personal interest.*—In an organization of any size there is always the danger that the rank-and-file workers will be looked upon as machines. Such a condition should be avoided. It is a decided incentive to the employe to do his best when there is that recognition of his presence which betokens an atmosphere of friendly cooperation.

It is, therefore, well worth while to devise means of bringing the officer manager in personal contact from time to time with every individual under his jurisdiction. Here are some methods that have been used successfully:

a. Monthly Interviews. In one large organization where the office manager works thru department heads, accurate records are kept showing the quality and quantity of work done by each individual, the attendance record, the number of suggestions turned in, and similar points. Ten of these individual records are brought to his attention each morning. With all the facts in mind he casually interviews each of these people, making it a point to encourage them and show them that he is in close touch with what they are doing.

b. Personal Memoranda. From time to time it has been found a good plan to send out personal memoranda to the members of the organization, touching upon some point on which it is desired to secure their cooperation. These memoranda can bring home the value of establishing a good attendance record, keeping the desk in proper shape, the importance of service, and many other points that make the individual realize the important part that he or she plays in the work of the organization.

c. Birthday Cards. Another concern has found the sending out of birthday greetings from an executive very effective. The fact that the executive is thinking of the employe aside from the actual work he or she may be doing cannot help but indicate that the employe is not a mere machine.

d. Points of Contact. Once the executive is convinced of the value of personal contact, it will be found that every day there are bound to be incidents occurring that give him a chance to come into contact with certain of his employes. It may be a case of sickness at home, some difficulty in the work, or a piece of good fortune. A systematic plan to keep in touch with these incidents should be followed and used as points of contact.

The result of this personal contact work will be that the employes will come to realize that they are not mere cogs in the wheel and that the organization has a real interest in them. Thru this realization they will be encouraged to give the best they have. Experience has proved that there is a worth-while return for such effort.

4. *Inspirational methods of stimulation.*—In endeavoring to improve the attitude, conduct and work of employes inspirational methods are effective. Human nature responds to inspiration. The constant tendency of the rank-and-file worker is to sink into a rut. Inspirational methods properly adopted and applied will prove exceedingly helpful in stimulating employes to lift themselves above the lure of the rut.

5. *Example.*—Employes are easily stimulated to better work by example. This is frequently overlooked, yet it is a fundamental principle. Observe the employes under a department head who is

thoughtless and indifferent in the conduct of his work. It will be seen that all employes who have been under his jurisdiction for any length of time will exhibit in a more or less pronounced degree a tendency to be thoughtless and indifferent in carrying out their duties.

It is essential, therefore, for an office manager to see to it that in every respect he sets an example worthy of being followed. It is a great mistake for a man to feel that he can successfully stimulate his people if he asks his people to do things that he himself is not willing to do.

6. *Internal house organ.*—An inspirational means of welding employes into a homogeneous, enthusiastic whole is provided in the house organ. It offers a splendid method of keeping alive the ideals and spirit of the organization as well as of making known the activities and achievements of the office workers. It gives the employes a chance to express themselves and to exchange ideas regarding their work.

It is rarely practicable to have a house organ in small concerns, but in larger offices it is a real necessity. Thru it, employes of each department may know what other employes are doing, and thus obtain a knowledge of what the several departments and the organization as a whole are accomplishing.

No ambitious clerk is content with knowing merely his own particular work. He desires to know more about the organization and about the people who are filling the positions to which he aspires. He wishes to know what is going on, so that he can do his part more intelligently.

The house organ is a medium by which the office manager can develop the ideas of the organization and dispel suspicion and ignorance. It will be more successful if it is published by the employes under the guidance of the management than if it is published by the management itself. The latter plan tends to awaken the idea that the house organ is published in the interests of the employer instead of the interests of the employe.

7. *Bulletin boards.*—While the house organ is the chief means of inspiring employes thru written messages, bulletin boards may also be used to advantage.

On bulletin boards may be posted notices, leaflets, pictures, inspirational mottoes and other suitable material. The bulletin board may also be used to give information about educational facilities in the neighborhood, about health hints, methods of accident prevention, efficiency hints, perhaps a few rules and regulations. It should be put in charge of some person whose duty it is to collect information, keep it in order and change the notices. Some offices use a "directory" board, such as is found in the vestibules of large buildings, upon which are posted the names of those who attain special distinction. In other offices graphic charts are published, showing the trend of output for the individual workers. There are service registers to indicate the length of time which each worker has spent in the company's service.

8. *Comment bulletins.*—It would surprise the average employer to realize how little his employes know what customers think of the organization. Every organization that is rendering satisfactory service receives letters of commendation from time to time and in other ways is brought to realize that its work is appreciated. The officers of the company are eager for such comments and are often aroused thru them to greater enthusiasm for their work.

In order that the rank and file may also get this same realization and thru this realization be inspired to do better work, it will prove worth while to send out little bulletins from time to time quoting these comments. One organization that is using this plan distributes comments of this kind once a week, and in order to keep its purpose constantly active in the minds of the employes, prints at the bottom of each bulletin "No. —— of a series of bulletins distributed in order that you may know what our customers think of the service you are helping to render."

9. *Code of principles.*—An *esprit de corps* cannot be built thru individual achievement. It gathers its strength thru the ideals of the firm—the rendering of better service or the production of better goods than competitors. Employes may be inspired to better work thru a realization of what the organization stands for. Many organizations prepare a "Code of Principles" for distribution among their employes. The president of the Sherwin-Williams Paint Company sums up these factors in his "Code of Princi-

ples" which is given to every new man upon entering the concern:

> Our first principle is: To win on our merits. This is the only way we want to win, and if anybody can beat us out on our merits, they are welcome to victory.
>
> Our next aim is: To be the best and largest concern of the kind in the world. We say "best" first because we would rather be the best, if we can not be the largest or both.
>
> Next we say: To be broad and liberal, as well as aggressive, in our policy and methods. Our reason for this is that in developing a large business I think there is a tendency to be rather narrow, grasping and selfish; so we try to keep that before us.
>
> The fourth principle is: To take a pride in our institution.
>
> The fifth: To be loyal to the company and to each other.
>
> The sixth: To foster good fellowship among ourselves, and to take pleasure as well as profit out of our work.
>
> The seventh: To strive consciously for the improvement and advancement of the business and ourselves.
>
> Eighth: To be considerate, polite and courteous within and without the company.
>
> Ninth: To be high-toned in everything, everywhere.
>
> Tenth: To grow in knowledge and character as in size.

The keynote of these principles in each case is efficiency; and the men are told: "Make the most of the business by making the most of yourself."

10. *Environment.*—Another means of stimulating employes to better work may be found in improving the environment in which they work. If little or no attention is given to the appearance of the office there is no natural encouragement for employes to be neat and careful about their work. On the other hand, if everything is kept in spick and span shape there is an

unconscious incentive to be more careful about the work done.

Furniture should not be allowed to remain undusted or in need of repair, employes should not be allowed to permit the tops and interiors of their desks to remain in a disorderly condition, and the floors should be kept clear of scraps of papers, etc. In a room of any size where there are a number of desks and tables the appearance will be considerably improved if the equipment is fastened to the floor so that aisles of even width are maintained at all times.

As often as once a month it is worth while to hold a thoro house cleaning, requiring each employe to clean out his desk and put things in order. Not only will this act as a periodic stimulus to be orderly but it will also eliminate the danger of valuable papers and records getting buried in the desks.

Once a year, at least, the office should be gone over and all necessary painting, calsomining or carpentry work done.

11. *Rewards.*—No office manager who understands human nature neglects the opportunity for rewarding meritorious work. The size or form of the reward is less important than the fact that it should be the result of a well-contested competition or of steady devotion to duty. Where this is the case, the plan is successful even when the reward is limited to a mere announcement on the bulletin board or the bestowal of an inexpensive stick-pin. The important feature

is that it is a distinction granted for merit, the details of which are known to all. It stimulates the recipient to increased effort and encourages those who have failed, to try again.

For the less-paid employes, cash rewards are always attractive, even when they are small. These rewards are even more effective when accompanied by a grateful note and word of encouragement. The superior value of a cash prize lies in its universal acceptability. The task of finding suitable prizes other than money is not usually relished by the busy office executive. Some office managers award medals every month—a gold medal for the best worker, a silver medal for the best attendance, a bronze medal for the best suggestion.

The effectiveness of rewards as a means of stimulation has given impetus to the formulation of definite systems based on the idea of rewarding extra effort. The merit and demerit system and the suggestion system are good examples of successful methods of stimulation.

12. *Merit and demerit systems.*—Merit and demerit systems are designed to give credit or discredit to the individual employe, to apply upon future rewards or promotions. The merit and demerit system is best illustrated by a practical example, in force in a large office. It is described as follows:

All the employes under the supervision of the office manager, with the exception of the chief and assistant chief clerks, who have been in the company's employ three weeks or more, are included under this system.

The merit system has been established to encourage and reward good work, and to discourage and penalize everything that interferes with good work.

Under this system an employe earns a merit for each day that he or she comes in on time, morning and noon, does not make careless errors or turn out a low quantity of work during the day, and leaves his or her desk in good condition at night. Furthermore an employe has a chance to earn an extra half merit or a merit for showing thought in any way. For instance, by catching an error that has been made by some one else. Extra merits can also be earned for extra effort put forth.

Merits are offset by demerits.

Demerits are given for four main faults.

1. Lack of punctuality, and absence.
2. Errors.
3. Lack of general neatness and cleanliness of desks, machines and files.
4. Insubordination or discourtesy.

1. Under this head comes tardiness. One-half demerit is given for being late up to two minutes; one demerit for from two to ten minutes, and one and one-half demerits for more than ten minutes. Two demerits are given for a half day's absence, and three demerits are given for an entire period of absence,

whether that is one day or one week, when an employe is ill or thru some other cause is unable to attend the office. One demerit or more (according to the time out) is given for time allowed off during office hours. In all the cases above, the merit for the day is lost.

2. A demerit is given for any error due to carelessness on any employe's part, or if work assigned for the day is not completed before going home. In the transcribing department, for instance, the quality and quantity of the daily work is taken into consideration. For instance, if a typist without justifiable cause has fallen below the standard by typing less than nine hundred lines on week days and less than four hundred and fifty lines on Saturdays, she receives one-half demerit. For less than eight hundred lines on week days and four hundred lines on Saturday, she receives a full demerit. And if the records show that more than 20 per cent of her letters were returned for correction, a half demerit is given her for that day; if more than 30 per cent, a full demerit.

In the same way, if a typist turns out eleven hundred or more lines on week days and six hundred or more lines on Saturday, she receives an additional half merit. And for twelve hundred or more lines on week days and six hundred and fifty or more lines on Saturday she receives a full merit.

Similar standards for quantity and quality of work have been established in the other clerical departments.

3. A half demerit is given if all papers are not cleared from each desk at night and if the drawers

of the desks are not shut tight. The same applies to all files and to the covering of machines, such as typewriters, dictaphones, multigraphs, adding machines, etc., before leaving for the day.

4. One or more demerits at the discretion of the office manager are given for discourtesy, insubordination or the infraction of any established rule, when the offense is not serious enough to deserve dismissal.

All those earning a surplus of twenty merits over demerits in any one month receive a quota prize of $3.00. Those who earn an average of one merit over demerits for each working day in the month receive an extra quota prize of $5.00.

It is the duty of the senior clerk of each department to keep a record of the actions meriting merits or demerits, and to hand in a detailed report each night to the office manager or his assistant. From these reports the weekly merit and demerit records are compiled.

Each employe receives a card every Monday showing the number of merits or demerits given the previous week. Any one wishing an explanation of his merits or demerits should consult the office manager or his assistant, who will be pleased to give the information desired.

All merits and demerits are put against each employe's record and have a strong bearing in promotions to higher positions and advances in salary.

13. *Suggestions.*—Giving employes opportunity

to make suggestions for the improvement of work and service is now recognized as a valuable means of discovering originality and developing better methods of work. Even comparatively inexperienced clerks may make suggestions that are of real value to the organization. Efforts are therefore made to encourage them to seek and suggest improvements. In such well-known concerns as the National Cash Register Company and the Eastman Kodak Company, elaborate plans have been made to obtain suggestions for improvements. Substantial prizes are given and periodical announcement is made of the winners. There is a difference of opinion as to the value of monetary reward, but there is a general agreement that publicity is a convincing incentive to good suggestions. The following is an outline of a successful suggestion system taken from actual practice and indicates the scope and operation of such a system:

Prizes are offered each month for the best suggestions with regard to the conduct of its business. There is a first prize of $10, a second prize of $5, and prizes of $3, $2 and $1 for minor suggestions. These prizes are intended not merely as compensation for the suggestions turned in, but also as an expression of appreciation of the constructive thought of the employes.

In addition to the above rewards, a first prize of $50, a second prize of $35 and a third prize of $25 are offered to the three employes who, during the current year, earn the most prize money for suggestions.

Consideration is given the following points in determining the awards:

1. The money-making or money-saving value of the suggestion.
2. Its practicability under present conditions.
3. Its originality.
4. The completeness and clearness with which the details of its actual operation have been thought out and explained.

The names of all suggestion prize winners are posted upon each department bulletin board and in the house organ so that the names of those who are striving to get ahead will be brought to the attention of all. The suggestion contest is open to all employes with the exception of the department heads. There is no limitation to the number or scope of the suggestions which may be submitted by each individual. They may relate to the general policy of the organization, to the literature, to the departmental equipment and routing, or to any other feature of the office work. Any constructive complaint or criticism from members of the force is also welcome.

All suggestions are turned in on a special suggestion form. This is numbered and has a stub bearing a similar number. After the suggestion is written, the author writes his name on the stub, tears it off, places it inside of one of the small envelops provided for the purpose, and retains the stub in his possession. The suggestion is folded and dropped into the suggestion box.

On the day of the meeting held to announce suggestion prize winners, the envelops containing the suggestion stubs are dropped into one of the suggestion boxes.

Just before the meeting the suggestion boxes are opened, the stub envelops are taken out and arranged in numerical order. Then as the number of each prize winner is announced, the corresponding envelop is opened and the stub shows who is the winner of the prize.

Suggestions are considered once a week by the suggestion committee in order that they may give suggestions full consideration and put into operation immediately those that can be used to advantage. Every suggestion that is not awarded a prize is returned to the author with the reason for its rejection. Under this plan employes know why their suggestions are not accepted, and also can discuss the matter with the suggestion committee if they feel that the suggestion has not been properly interpreted. All department heads are ex-officio members of the suggestion committee in considering suggestions affecting their departments. Under this plan, an employe will know that his suggestion has been carefully gone over, not only by the members of the suggestion committee but also by the department head of the department affected.

From time to time examples of good suggestions and examples of suggestions that can not be awarded prizes are discussed in the house organ. This serves as a means of helping employes to learn the principles that underlie successful suggestions. A record of all employes who submit suggestions is kept so that each department head may know which employes under his jurisdiction are thinking about their work. Whether an employe wins a prize or not, the concern in deciding upon recommendations for increases in salary or for promotion, will consider more favorably those who are doing constructive thinking.

14. *Promotions.*—Providing an opportunity for employes to earn increased responsibility is a very effective method of stimulation.

Too often promotions go by favor. The result is a marked discontent among the rank and file of employes. The lack of a just system of promotion deprives many an organization of the services of men whose ambitions, they feel, are balked. Recent studies in labor turnover show that the lack of opportunity for advancement is a frequent cause for men leaving their jobs just at the time when their experience is becoming a real asset to the firm.

A knowledge that they are being watched with a view to promotion, is a strong factor in stimulating employes to do more than their ordinary routine duties. The system of promotion should include a carefully-thought-out plan wherein the line of promotion is defined and charted and where men are shown the specific steps which their progress is likely to take if they display those qualities which their present position demands. Promotion in such cases generally depends upon application to work, avoidance of mistakes, good behavior, regular attendance and punctuality.

The National City Bank of New York has an established policy of filling, whenever possible, all important positions by promotion, and it is only on rare occasions that this rule is broken. In the National Cloak and Suit Company, employes are promoted on the basis of examinations, and a record is kept showing the length of time spent in preparation and the mark obtained. Such systems help to develop ambitious office boys into clerks and clerks into executives, when every one in the office knows that his interest and good conduct will receive a proper reward. Promotions are important events in the lives of employes, and these should be made known to others so that they may act as a stimulus to them.

REVIEW

What is meant by the "stimulation" of employes?

Do you believe it advisable to secure the "approval" of employes in introducing new schemes such as a longer working day or a new system of wages? How could you "sell" such an idea to employes?

How can an executive keep posted on each employe's effort to master his position so that he may recognize and reward special ability?

Suppose an employe has the habit of appearing at the office ten to fifteen minutes late. How would you handle this infraction of rules?

Enumerate the many advantages of a "house organ."

Should money prizes be awarded as a reward for merit?

CHAPTER X

FILING

1. *Office operations.*—The variety of office operations is so great that any attempt to enumerate them would be fruitless, and any effort to describe them in detail would be unsatisfactory. Correct office management reveals itself in a careful adjustment of many matters of detail in such a way as to secure the maximum efficiency. The needs of any particular office will in a large measure determine what constitutes efficiency. It is not always found either in speed or in quantity tho in most cases these are important elements.

The importance of detail can only be understood by a careful analysis of some of the office processes. In making a choice of those which will serve as illustrative matter, filing and interdepartmental communication have been chosen. However much offices may vary in detail, these are matters of almost universal application.

2. *Importance.*—A good system of filing is more important for the expeditious and proper transaction of business than is generally realized. It does not merely consist in placing letters where they may be promptly and surely found; its larger and more valuable function is to make available such material as is

necessary for the complete study of any particular problem whether it be merely a single letter, or everything relating to some special subject.

Theoretically, filing is a very simple matter, but from a practical viewpoint it is frequently anything but a simple matter because of the quantity of material handled and because it is not always easy to determine from just what angle reference will be made to the material filed. For instance, at the time a letter is filed it may seem entirely proper to file it under the name of the correspondent. But subsequently it may develop that the letters should have been filed according to subject.

Again, a letter may refer to two or three different things. A proper plan of cross reference under such circumstances will be the only salvation if the files are to render the service expected of them.

The importance of a knowledge of filing principles and methods is realized when we see that a single misplaced letter may result in serious loss to the business, and at the same time recognize how easy it is to misfile a piece of correspondence.

The importance of filing is further increased by the tendency as the business grows to centralize those files that are in general use. In this way the cost of operating the files is reduced, and greater efficiency in the operation of the file is obtained. Moreover, centralized filing offers the best means of fixing responsibility—an important matter where there are so many possibilities of loss thru divided responsibility.

3. *Essentials of a good filing system.*—The essentials of a good filing system are:

1. Accessibility of records
2. Simplicity
3. Suitability

The prime essential of a filing system if it is to justify its existence is that it enables anything filed to be located again with a minimum expenditure of time and effort. It makes no difference whether the correspondence was filed recently or some time ago. If it can not be located readily the filing system is not what it should be.

An elaborate filing system is not necessarily a good one. The filing system should be built on the principle that it must be readily understandable to the average clerk. As a matter of fact, the simpler the system the less danger there is of mistakes.

A system may provide accessibility and simplicity and yet not be suitable from the standpoint of the particular business in question. Office managers are sometimes tempted by the beauty of the system operating in some other concern to attempt to transfer it bodily to their own organization. This cannot be done because no filing system not dove-tailed into the peculiarities of the business can be really successful.

4. *Systems of filing.*—There are a number of sys-

tems of filing. These include the alphabetical, the numerical, the alphabetical-numerical and the decimal systems. While the descriptions in the following pages are confined to correspondence files, the same principles apply to the various types of card files.

In familiarizing oneself with all of the important systems of filing one should not feel that the essential thing is to pick one system to the exclusion of all others. As a matter of fact, in an organization it may be possible to use all the systems. There is no one system that is better than all others and this fact should be clearly recognized. There is, however, one system that is best adapted for use under each particular set of conditions. If many different conditions exist in the various activities of an organization, then it is conceivable that all systems might be used. Ordinarily, however, it is wiser to use as few systems as possible.

5. *Alphabetical system.*—The alphabetical system of filing is the simplest and the most generally used system. It is used either singly or in conjunction with other methods. This method of filing is termed alphabetical because the files are arranged in alphabetical order and all reference to the file is direct without requiring the use of a separate index.

In determining the exact arrangement in the file the alphabetical arrangement employed in the telephone directory will be found the most convenient. Guide cards are made out based upon this arrangement. The folders, with their contents indicated on the stub provided for the purpose, are filed in alphabetical position behind their proper guide card.

There are those who claim that the alphabetical system is the simplest of all systems and that because of its ease of operation and the scope it offers for development it is the best system of filing. There are, however, certain disadvantages in the use of the alphabetical method. There is a temptation to deposit letters from occasional correspondents in a miscellaneous folder under each letter. This scheme may economize space and paper, but it is a waste of time and should not be practiced. The unimportant letter of today may be of much consequence tomorrow, and if it is worthy of filing at all it is entitled to a separate folder.

A real disadvantage, especially where office space is limited and rents are high, is that some space for expansion must be allowed in each drawer. The general practice is to allow one-third. Unless sufficient space is provided, the overflow—that bugbear of filing systems—is sure to crop up and may necessitate a rearrangement all along the line. Another trouble lies in possible alternative filing under the firm's name and under the name of the correspondent who writes for the firm. It is well always to file under the name of the firm except where the correspondent is dealing with matters which do not concern the firm on whose stationery he has written.

Alphabetical filing is best employed when the papers filed are of temporary rather than of permanent value and when comparatively little reference is made to them.

6. *Numerical filing.*—The method of filing by number is extremely simple. Its value is based upon the known principle that the average mind works more rapidly with numbers than with combinations of letters of the alphabet.

Each correspondent, organization or subject is given a folder, numbered in the order in which the first letter or paper is received. A list is kept of these numbers. An index card is made out at the same time upon which is noted the name as well as the number. Each letter from the same individual or on the same subject is then numbered to correspond with the card and folder so that it can be replaced after use. If, however, a rightly numbered letter is placed in a wrong folder, it may be difficult, tho not impossible, to find it. If the wrong number is placed on a letter, a tedious search may have to be made for it.

This system is economical of space because each file can be used to its capacity, but eventually the files become loaded up with dead matter. If the number of what appears to be an obsolete folder is given to a new correspondent, confusion may result.

This numerical system cannot be used to advantage where there is a large volume of correspondence with only a few persons, nor where the correspondence is only transient. The auxiliary card index, which has to be arranged alphabetically and kept continually up to date, is a trouble and expense which is lightened if the cards can be used for some other necessary operation of the work, such as quotations or orders. The problem of the occasional correspondent occurs here, too, but it is wise to use a separate folder even if only one letter is received, tho the space taken by the many folders required may be great.

Some offices combine both methods, arranging all occasional correspondence in an alphabetical file, using the numerical arrangement exclusively for continual correspondence. This scheme, however, destroys the unity of the files—a procedure of doubtful value unless the file is in charge of one who is well acquainted with the system.

7. *Decimal filing.*—A comprehensive but somewhat more elaborate method of filing is the decimal system, according to which the correspondence is grouped under a certain number of main subject or department headings. Each division has a number which follows the main number, separated from it by a decimal point. The system is excellent where there are a few departments or topics under which a great variety of subheadings must be arranged, and where it is desirable to classify all the business of the firm according to related subjects, but it requires a comprehensive classification with an alphabetical card index to indicate the numbers to which each subject belongs. Its flexibility is its chief recommendation. If, for instance, the material to be filed relates to a variety of makes of automobiles and their parts, each car will have a certain number. Supposing that number is 371, then

the cylinder will be, say, 371.7, the outer casing 371.72, while the piston may be 371.724, and so on. The same principle may be applied to the filing of any subject and gives satisfactory results if the plan is properly designed.

8. *Alphabetical-numerical filing system.*—This is a combination of the straight alphabetical system with auxiliary numbers. The purpose of this elaboration is to prevent the errors that are likely to arise in plain alphabetical filing. The alphabetical guides are divided as minutely as may seem necessary, and each guide has the full alphabet and its numerical symbol printed on it to facilitate reference. By means of this table all letters can be expeditiously classified and numbered before being placed in the files.

An ingenious method of filing is created by the combination of color, number and alphabet. In this system, the alphabet is grouped under various colors. When the title consists of only one word, the first three letters of the alphabet are used. When the title consists of two words, the first letter of the first word and the first two letters of the second word are used, and so on. These letters, by reference to a table, are given a numerical significance, which determines their position in the file. In use the system is found to be quite simple, tho somewhat difficult to explain. It has been well thought out and has been successfully applied to some very difficult indexing problems.

9. *Mnemonic filing system.*—This is approximately the same as the decimal filing system except that in-

stead of numbers, letters are used which indicate by sound as far as possible the name of the material to be filed. It is more flexible in some respects than the decimal classification because the major classifications are not limited to ten. Thus "A" may represent the advertising department, "C" the credit department, and so on. Advertising in newspapers will be represented by the symbol AN, while AM represents magazine advertising. AMA will indicate advertisements in the *American Magazine* and further letters can be used to indicate the type or size of the advertisement. The main objection to this system is that in the finer sub-divisions the mnemonic symbol is apt to become cumbersome, tedious and therefore liable to error.

10. *Geographical filing.*—The advantage of geographical filing is that all the correspondence of one territory is kept in one place—a plan which may prove very useful in a sales department, for instance, where it is advantageous to know what relations the concern has had in any given territory. It is advisable to use a postal guide or similar list as a basis for determining what correspondence is to be filed under each division. For instance, it is necessary to determine whether all correspondence relating to New York and its suburbs should be filed under one heading or whether Brooklyn, for instance, should get a separate heading. All such points should be carefully considered in planning the scope of the system. There is, of course, some trouble if a correspondent has changed his address without the folder being changed

accordingly. The duplication of town names may lead to trouble, but with care that can be prevented. It is well to have a definite ruling that all letters from firms and their branches shall be entered under the geographical location of the head office.

The geographical arrangement of the file may best be made to agree with the selling territory, the state or the town, according to the nature of the business. Correspondence under each heading may be arranged alphabetically.

11. *Chronological filing.*—In this system all letters are filed in the order of the date on which they are received, or according to the attention date indicated by the contents. The system is very valuable in some lines of business where the transaction has to be performed at a certain fixed time, as in periodical publishing houses. Guides containing the months and the days of the week or the number of the days per month are used to separate the material which need not have a separate folder.

12. *Perforation filing.*—A new idea, likely to prove especially useful in some cases, is "Perforation Filing." This is a mechanical method whereby certain pieces of information may be readily and accurately segregated by means of perforations of a certain shape on cards.

Cards must be so designed that any fact may be indicated by the mere punching of a slot. When all the cards are slotted, they are placed in a drawer and rods are run thru them. The drawer is then inverted and only those cards which are slotted drop down to the limit of the slot while the others are held in place. The drawer is then righted and the cards thus segregated can be counted at leisure. Thus the hand-picking of the lists is eliminated.

In a unit of 600 cards perhaps no more than ten may be slotted alike. It would be a tedious affair to examine the whole box by hand, whereas by the use of this device their location may be instantly determined. For instance, if one wishes to know how many correspondents have a certain financial rating, a given slot indicates the facts, and the number in that group can be determined by inverting the drawer. This system of filing may be used for prospects whose financial standing, profession or location is a matter of interest. "Perforation" files may be made to disclose any isolated fact or any required combination of facts.

13. *Filing methods.*—It is an accepted fact that vertical filing is the most efficient method. Vertical filing permits material to be filed conveniently and with much greater economy of space than is possible under other methods.

Under most conditions correspondence grouped in a single folder should be arranged in such a way that the material with the most recent date is in front, thus facilitating reference to the material that is most likely to be used.

Material should first be arranged in the order in which it is to be filed. For instance, under a numerical system the sheets should be arranged in numerical order before any effort is made to replace them in the files. A standard sorting tray will be found the most convenient and efficient method of sorting. The sorting tray is simply a container provided with guide cards permitting the assorting of material alphabetically or numerically.

Before actually placing a letter in a file the name should be compared with the material already filed in order to be sure that the letter is being placed in the proper position. Such a comparison will also be helpful in catching up any previous mistake that may have been made. There should be a definite ruling that with the exception of carbon copies of letters nothing will be accepted for file that is not crossed thru with a line, initialed and dated to indicate that it has been answered. Unless this is done there will be constant danger of unanswered letters being filed.

Making proper cross references is an essential safeguard in the operation of every system. If it is efficiently done, any paper may be located instantly, no matter how complex its contents may be. In this matter good judgment, founded on knowledge and directed by a definite plan, has to be continually exercised. If in a letter from Brown reference is made to one from Jones, the fact should be noted in Jones' folder, otherwise the latter's correspondence will not disclose all the information that may be needed in dealing with his case.

A slip of paper, preferably of a conspicuous color, should be placed in Jones' folder, calling attention to the fact that Brown's folder is to be consulted for further information.

14. *Charge system.*—Perhaps the most fruitful source of trouble in filing is due to the abstraction of papers without any adequate record being made of the fact. The value of a charge system lies in the fact that the location of any paper that has been withdrawn is always known. This may be done in two ways: first, by making and keeping a list of each item removed, and secondly, by inserting a sheet of conspicuous color in the files in lieu of the paper abstracted. In the first case, when the paper is returned, the name is crossed off the list. In the second case, the substitute sheet is not withdrawn till the letter is replaced. On this sheet are the names of all those who are likely to require papers, and the name of the person actually receiving it is underscored before inserting the sheet in the file.

Still another plan is to send to the filing room a requisition sheet for any paper wanted and to place the requisition sheet in the files till the paper or letter is returned. This sheet is of conspicuous color and large enough to be readily seen in the files. Periodically the requisitions are checked over and requests are made for the return of papers that have been out too long. The requisition sheet bears a printed note to the effect that it is placed in the files until the correspondence requisitioned is returned.

15. *Follow-up.*—It is very necessary to adopt some method whereby matters for future consideration may

be attended to on the proper date. For this purpose a "follow-up" or "tickler" system must be used. If letters are merely placed in a temporary chronological file, they may not be found by some one else who tries to find them in the regular file. It is better to keep all such letters in the regular file and make out a card for the tickler. This card indicates the name, the file number, the person who wants the correspondence and the date upon which it is wanted.

The call-out date is usually conspicuously indicated on the correspondence itself by the person who wants the information, and it is the file clerk's duty to make out the tickler card and attend to the matter on the right date. For this purpose these cards are filed chronologically and consulted every morning. Suppose a salesman finds that a prospective customer desires to see a certain machine next month. The filing clerk is instructed accordingly and on the appointed date the salesman is reminded of the circumstance.

The follow-up is indispensable in the collection of delinquent accounts or in securing the prompt shipment of goods. In the office it may be used for reminding the different members of the staff of meetings, appointments and duties to be performed at specified times.

16. *Transferring material from files.*—The value of all correspondence decreases with age while its bulk increases, and thus transfer of old files becomes a necessity which has to be considered. The importance of methodizing this process becomes apparent when,

for instance, a lawsuit necessitates a search for letters over a period of time not covered by the active files. It is then that the transfer-file method is put to the test.

The simplest way is of course to transfer the entire files intact at certain definite periods. But that method is likely to cause serious inconvenience if there is frequent reference to recently transferred matter, unless the latter is easily accessible. Another method is to retain two years' correspondence in the active files, making a division between each year's correspondence, or apportioning the upper drawer to the current year and the lower drawers to the year just past. The older file may then be transferred whenever reference to it has ceased, and the plan may be repeated every succeeding year. If in addition a special color is used for the folders of each year, there is not much danger of misfiling current material. It is a good rule to make this transfer periodic, tho it can best be done when no other pressing work is on hand. The transfer period affords an opportunity to eliminate all useless material from the files. The transfer of individual folders that have become bulky is sometimes resorted to, but the temptation to follow this practice should be avoided. It is advisable, however, to keep a record in the active files of all transferred material.

17. *The record room.*—As a rule, office managers give little thought to the matter of preserving old records until a search for some old papers reveals that

due provision has not been made to preserve correspondence that might be of value. The ideal way is to have a record room with a plan showing the arrangement so that the files may be consulted with convenience when necessary.

The record room should be well ventilated, as otherwise the papers are sure to deteriorate rapidly from dampness. The room should be well lighted so as to facilitate search and make the storing of documents easy. Unless it is known to be fireproof, the room should not be used if the papers are at all valuable. A number of well-painted steel shelves, of movable size, divided into sections should be built as in a library, and each shelf, if possible, might be of the approximate capacity for the papers of each year. The shelves must be identifiable by means of plain numbers so that any one, tho unfamiliar with the record room, will have no difficulty in finding the papers of any one year. A card index placed at the entrance may indicate where each class of material can be found.

In the care and use of the record room, the same necessity exists for centralizing responsibility as in the management of the active files. No one should have access to the record room except by permission of the person in charge.

18. *Inspection of files.*—No matter how careful the files clerks may be and no matter how thoro a system has been worked out, errors in filing are bound to occur. Some check against this condition should be

provided if serious consequences from lost correspondence are not to result.

The best protection against this condition is to have a person whose duty it is to check the file constantly. This clerk goes thru each drawer of correspondence and sees that not only are the folders arranged in proper order but also that the contents of the folder are correct and properly arranged. Under this plan the "loss" of correspondence is prevented. Furthermore it tends to make the filers more accurate because they know that their work is being checked.

REVIEW

What should be the preliminary training of a filing clerk?

Under what circumstances is a departmental file more economical than a centralized file?

Why are vertical files coming into wide use, superseding the box files in all large offices?

What method of filing would you use in an editorial office? In a mail-order office?

How would you file a letter written on company stationery but signed by an individual?

State what is meant by perforation files.

CHAPTER XI

INTERDEPARTMENTAL COMMUNICATIONS

1. *Vital need of communication.*—In any large organization there is a fine subdivision of functions, requiring constant communication between the members. Orders must be transmitted to subordinates, who must confirm receipt of the orders and report upon their execution. Subordinates and officials must frequently consult with one another. Men in one room find it necessary to consult files, books or catalogs in another room. Stenographers are constantly needing new supplies. There is a constant inflow of mail to the different departments of the business, and a corresponding outflow of answering mail. Interdepartmental communications are therefore of the greatest importance.

Communication facilities in the office must provide for the transmission of various sorts of things: (a) verbal messages; (b) written messages; (c) material, such as typewriting paper, pencils, etc.; (d) correspondence files, catalogs, library books; (e) business documents such as orders and requisitions which in their normal course must pass thru many hands.

2. *Unproductive time.*—Unless there is efficient means of communication there is danger that workers

will waste much time moving about the office to consult with one another, to examine records or correspondence or to get supplies. The time which an employe spends away from his desk is generally unproductive. Interdepartmental communications aim to overcome the disadvantages of the spacial separation and enable employes to carry on their intercourse with the same ease as if they were seated side by side.

In many offices the working force is constantly beset by interruptions which lower the efficiency of the work. The time needed to perform specific lines of office work is governed not so much by the actual volume of work as by the intervals between the performance of the various steps into which the work is divided. If those intervals can be cut down, there will be a large saving in time and consequent increase in output.

3. *Reducing waste motion.*—Good facilities for intercommunication in an office benefit every member of the force. It has an important effect upon the discipline of the workers. Efficient discipline cannot be maintained if employes needlessly leave their desks and spend their time upon interdepartmental visits.

Business is normally conducted under pressure. Therefore, whatever hinders the rapid flow of work thru an office will prove a source of irritation to the management. It cannot be expected that the executive himself should desert more important functions in order to attend to routine work. Yet close attention to this routine work is what is demanded of him if there is congestion in the system, because of a faulty circulation of information, messages or documents thru the office. He has to find the point of congestion and remove it.

Betterment of office communications can be made an important part of the work of the planning department.

4. *Surveys for communication systems.*—It is usually possible to determine by means of a survey the adequacy or insufficiency of a firm's intercommunication facilities. An insurance company was recently confronted with the problem of remodeling its home office building in order to adjust the available floor space to the growing needs of its business. Before deciding upon the location of different departments, the company found it necessary to study the flow of the business thru the office and determine what departments could most advantageously be grouped together.

The first thing done was to secure a record of the interviews occurring between the employes of different branches of the office organization. A chart was made in a department containing about twenty-five employes, each of whom was provided with a form ruled to report incoming communications on the upper half and outgoing communications on the lower. The business day was divided into half-hourly periods, from 8.30 A. M. to 4 P. M., these half-hour designations heading the vertical columns. The horizontal columns represented the days of the week.

On the back of the blank there appeared in alphabetical order the names of all the employes involved. To each name a number was assigned. The object of the blank was to record the names of all persons from other departments who visited this department during one week's time. On the lower half of the blank (outgoing communications) the employe was asked to record the names of those persons in other departments whom he was obliged to see.

During a certain specified week this record was kept by each employe, and at the end of the week the results were turned over to a central department for analysis. At the same time a summary sheet was made out, on which all the incoming and outgoing communications of each employe were grouped in such a manner as to show the total number of communications with any other employe during the week. Employes were also required to state, as accurately as possible, the reasons for such communications, and were instructed, in cases where communications occurred for different reasons, to summarize them separately and as accurately as possible. A comparison of the summary sheets made it possible to study the causes for communications, and much valuable information was in that manner obtained.

A third form was employed for listing all such absences from the department as were for the purpose of consulting records, securing correspondence or documents from the files and for doing work that did not require interviews with others. It was the company's plan to use this information for ascertaining the most convenient location of various files thruout the office, and to discover the extent to which the individual clerks were performing work for different departments which might be centralized into a general service department, a mailing department or a filing department.

The information secured by this means enabled the insurance company to reach definite conclusions regarding the layout and assignment of office space. In addition, it was possible with this information to demonstrate the need for several service departments. The chief form used by the insurance company is reproduced on the following page. It may be adapted to the needs of almost any business organization. It affords a practical means of studying interdepartmental service.

5. *Other modes of survey.*—Other methods of making a survey of the present systems of communication within the office, will suggest themselves. By the use of telephone counters (a simple numbering device operated by a lever) on the telephone switchboard, the operator can record all calls of interdepartmental and outside business, and the results will help to indicate whether or not a "house telephone" should be installed. Similarly the elevator operator can be instructed to keep a list of the employes using the elevator to visit other departments. The purpose of information thus obtained is to minimize the extent of visits either by

NAME John Smith

DEPARTMENT New Business

SECTION Examiners

Date From April 12, 1915
To April 17, 1915

	8 30-9	9-9 30	9 30-10	10-10:30	10:30-11	11-11:30	11:30-12	12-12:25	1:45-2	2-2 30	2:30-3	3-3 30	3:30-4	
Monday						121								INCOMING
Tuesday									107					
Wednesday							14	14						
Thursday														
Friday														
Saturday					120									
Monday						108								OUTGOING
Tuesday														
Wednesday				7										
Thursday						96								
Friday										96		67 68 67		
Saturday				108										

PERSONAL COMMUNICATIONS BLANK,
OFFICE SURVEY COMMITTEE

rearranging the location of desks or by providing efficient means of communication, such as office boys or telephones, to make the visits unnecessary.

6. *Study of route of orders.*—The actual layout of an office is, however, most frequently effected by a study of another kind of office intercommunication, namely the routing of orders thru the office. Orders are the documents that most frequently pass from hand to hand. It often happens that delay in one department nullifies the good work of other departments concerned in handling the orders, and when a delay occurs in the shipment of goods, the disappointed customer does not level his criticism at any one department but at the concern as a whole. The chain is no stronger than its weakest link.

Accordingly, the control of the passage of orders thru the office should be centralized in the hands of responsible authority—either the office manager or a standing committee working under him. The office manager, in order to make an intelligent study of the existing methods of handling orders, should provide himself with plans that show the relation of each department to the others. These plans should show not only the layout of each subdivision but also the location of all desks and filing equipment. On these diagrams the route which the order takes in passing thru the office may be charted, so that a study can be made of possible improvements. In such a study, the following points, among others, would have to be taken into consideration:

1. Are the workers so arranged that the work passes from one desk to the other in the shortest possible line, and without the necessity of doubling back?

2. Are the files located near the desks of those who are obliged to use them most frequently?

3. Can any steps in the present handling of orders be eliminated?

One company, as a result of a scientific study of the principles of dispatching, brought about the result that its principal unit of work, which formerly required an average of three days, was reduced to a standard schedule of three hours. Orders received in the first morning's mail are disposed of by noon of the same day.

7. *Transmitting messages—mail.*—The written messages to be transmitted within an office organization are of two sorts: outside messages (mail) and inside messages (interdepartmental). The handling of the mail is in large offices the function of a special mailing department. The distribution of the mail is attended to by an office service department, which also attends to the transmission of messages, materials, supplies and documents between the members of the organization. In so far as the use of mechanical message carriers have not relieved employes of the necessity of moving about, the office service department—the office boys—afford them this relief.

8. *Incoming mail.*—There is perhaps no branch of

office work more important than the opening, sorting and distribution of the incoming mail. An hour gained in the morning may add several to the business day. Office work usually moves along according to a fixed schedule, and if the mail misses the beginning of the schedule, it usually lies over until a later hour. The chief consideration in the handling of incoming mail is that it shall be placed in the hands of the proper persons at the earliest possible moment.

In one business house a correspondence manager examines all incoming mail and marks the letters for the departments to which they are to be sent. The departments are designated by number. Some letters go successively to various departments, the manager indicating the order which such a letter is to follow. If it is necessary that the letter make the rounds within a certain time, the correspondence manager lists the departments to which it is to go, and indicates the time within which the letter must be returned. All mail except such as is marked "personal" is opened by the correspondence manager. When a letter must be referred to several departments—especially if it is an important letter—it is sometimes copied and a copy sent to each department interested.

The general mail-distributing clerk or the departmental mail-distributing clerk should see that there is noted on every letter or attached to it, all information and every record which the correspondent needs in proceeding to answer that letter.

9. *Outgoing mail.*—The handling of the outgoing

mail embraces the collection, putting up, sealing and dispatching of mail from all departments. The office service department does the collecting of the mail, in accordance with the collecting schedule fixed by the mailing department and observed by the departments which create outgoing mail. Frequently some departments dispose of their mail promptly at or before the end of the business day, while others do not. As a result, delays occur from which the entire mail system suffers. This condition is sometimes due to the fact that certain department heads instead of signing their mail at intervals during the business day, permit it to lie on their desks unattended until after office hours.

An effort should be made to dispatch outgoing mail in conformity with the mail-train schedules for different parts of the country. A little care in that direction sometimes will save an entire day in the delivery of important mail. In most large concerns the folding, inserting and sealing of letters is done by the mailing department. In this work there is an opportunity for standardization which is not without influence upon the effect which the letters produce. For example, the rule book of a certain manufacturing concern in the East gives the following instructions with respect to the folding of letters:

> In folding a letter for an ordinary envelop, do not place the bottom of the sheet even with the top before folding crosswise, but place the bottom of the sheet an eighth or a quarter of an inch below the top, then fold in the usual way.

by folding in this manner, the party receiving and opening letter will find that there is room to grasp the top without taking hold of the bottom of the sheet at the same time, and the letter may be unfolded or shaken open with a quick jerk.

Since expenditures for postage, even in a concern of only moderate size, amount to a large item during the course of a year, an effort should be made wherever possible, to group all letters intended for any one correspondent, such as a branch office, so that they may be mailed in one envelop at the close of the day's business and thus reduce postage to a minimum. This can be done by providing a rack with a series of compartments for the mail of those with whom correspondence is regularly carried on by several departments. In these compartments the outgoing letters are assembled during the course of the day and mailed at night in a single envelop.

Various mechanical devices are found valuable in the handling of outgoing mail; among these, envelop sealing and stamping machines, weighing scales, addressing machines, etc. These are described in Chapter V, "Office Appliances."

10. *"Put it in writing."*—It is recognized as an important rule of modern business practice that all instruction must be in writing, and this applies also to information sent from one division to another. It is found that oral messages waste time, that they often cause annoying interruptions and that they are frequently misunderstood or forgotten. The function of collecting and distributing such interoffice mes-

sages is one of the main functions of the office service department.

Forms used for recording various kinds of office communications offer a good field for standardization. Memorandum forms usually have the initials of the sender and the person addressed, as well as the subject matter and the date of sending recorded at the top of the blank in spaces indicated for that purpose. A form, long used by a certain office and found to answer all ordinary requirements, is reproduced on the opposite page.

11. *Saving writing.*—A somewhat different form, used by the Federal Reserve Bank of New York City, is also reproduced. Under the heading "Deliver to" appear the names of various officials and departments, the person addressed being indicated by a check mark. Under a second heading, "Instructions," are a number of brief instructions of a typical character, and at the foot of the blank is a space for the name of the sender. One edge of the blank is gummed to facilitate attaching it to correspondence. The Federal Reserve Bank form illustrates the growing tendency to reduce writing to a minimum and substitute the checking of printed paragraphs wherever possible. In the case of a document that must be inspected by a number of men, a gummed label, like the one just described, can be attached, and each man can put a check mark opposite his name when he has completed his inspection, thus releasing the document to be forwarded to the next name on the list.

OFFICE MEMORANDUM

To .... Date ....
From .... In re.....................................

Oral messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.*

When the sender of an interdepartmental message wishes to keep a record of the fact that the message was sent, there is no substitute for a carbon of the message. Even in such cases, however, it is possible to reduce the amount of typewriting by diminishing the use of titles, salutations and other formality, and substituting initials instead of full names.

It is a good practice to use colored forms and envelops for interdepartmental messages. It is then impossible to confuse such communications with outgoing mail.

12. *The office boys.*—So far as possible, locomotion in the office should be performed by the office-service department. The quality of the messenger service depends upon the work of young and relatively inexperienced junior clerks and boys whose understanding and appreciation of the work must be developed before they can be expected to render good service.

13. *Regular schedule.*—It is essential to a satisfactory messenger service that the trips made by messengers thru the various departments in the office be both frequent and regular. Just how often these trips must be made depends, of course, upon the size and requirements of the organization. In one large manufacturing business where a great deal of ground must be covered and where many letters as well as small packages must be transferred from one department to another, a messenger starts out every ten minutes, and this rate is kept up thruout the day. In a large banking institution it is the practice to have messen-

gers make the rounds every fifteen minutes. In institutions where the need for prompt exchange of information between departments is not so urgent, half-hourly and even hourly intervals may do.

Federal Reserve Bank of New York	Deliver To	Instructions
Mr. Strong	Bond Issue Division	*Confer*
" Jay	" Exch. "	*Return with paper*
" Case	Bookkeeper	*Note and file*
	Credit Dept.	*Note and return*
" Curtis	Crediting "	*You reply*
" Sailer	Debiting "	*Prepare letter—I will sign*
" Hendricks	Discount "	*Investigate and report*
" Kenzel	Files	*Draw check in payment*
" Jefferson	General Bookkeeper	*Usual course*
" Higgins	Note Teller	*Confirm signature*
" Gilbart	Paying "	*Comply*
" Lins	Receiving "	*Decline*
" Chapin	Securities Dept.	*Directors' Meeting*
Accountant	Statements	
Auditing Dept.	Transit Dept.	

From Mr.

Misc. 36

For distributing and collecting purposes, messengers are usually provided with leather receptacles containing separate departments for the different divisions of the organization. When the interdepartmental messages collected are brought back to the central station of the office service department, the messages are sorted as to destination and sent out for desk distribution on the next trip. The same, of course, applies to packages, files, etc.

14. *Collection baskets.*—To facilitate the collection

and distribution of interdepartmental mail messages, some concerns have regular collection baskets on rubber wheels which the boys use in making the rounds of the office. These baskets, as a rule, consist of three compartments. One of the baskets is intended for incoming papers, the second for the collection of outgoing papers, and the third for holding correspondence which is to be returned to the files.

At the central distributing station for departmental messages a rack of pigeon holes facilitates distribution of the collected matter.

15. *Checking up the office boy.*—To prevent delays and errors due to carelessness of messengers, and to enable the person in charge of the office service department to trace delays to the boy responsible for them, a checking system has been devised. Mail and messages for distribution are placed in a basket or tray marked "Outgoing," and are collected when the messenger boy distributes mail or messages to an adjoining basket or tray marked "Incoming." The baskets or receptacles are emptied at regular intervals on the route. Each card must be marked with the time of collection as, for example, "This tray was emptied at 8:30 A. M." Each messenger has a certain number of trays or baskets on his route and is held responsible for all collections and deliveries. In each receptacle there is a card showing the time of the last delivery.

16. *Speeding up communication.*—The officers of a well-known banking company found it necessary, in order to expedite the delivery of messages and

letters from one department to another, to provide the office boys with some means of rapid locomotion. The ordinary steel-wheeled roller skates being too noisy, a specially constructed wheel was made of rubber, and the boys now glide swiftly and noiselessly from desk to desk.

17. *Mechanical messenger boys.*—The overhead carrier system is another method of interdepartmental communication that has proved its value under certain conditions. The Phoenix Mutual Life Insurance Company of Hartford, for example, in an article in *System* says:

> During the process of recent changes in one of our larger departments, many mechanical office devices were investigated for the purpose of speeding up the process of issuing policies. A thoro analysis of the old method of routing applications thru many hands for the purpose of getting all necessary information, led to the adoption of a mechanical messenger boy system.
>
> The apparatus is an adaptation of the carrier system familiar in many department stores, and it is used for carrying policies and other papers from one desk to another by an overhead route.
>
> The system consists of six lines, two of which afford direct communication between sections of the departments, and four of which radiate from a central desk where the papers are automatically transmitted to their destination by the information clerk.
>
> The baskets for the system were specially constructed, being made of light alloy metal, with hinged doors at the back and front, so that complete letter files may be inserted without folding.
>
> Besides serving to carry all interdepartmental messages, these carriers are used for sending Dictaphone records be-

tween various stations and a central transcribing station. A test recently made on the six lines for a period of one week shows 1830 trips (both ways) were being made by all the carriers. Multiplying the number of trips made by the length of line in each case gave the result that nearly 13 miles were covered by the carriers in a week.

The mechanical messenger boy service has proved not only a saving in time and labor, but has eliminated much of the confusion which inevitably arises from having a number of persons involved in handling and distributing documents. The necessity for clerks leaving their desks, and the nuisance of frequent interruptions have been done away with, resulting in a greater concentration on the work of the clerks, and a material lessening of the time required for the issuance of a policy.

18. *Signal services.*—For transmitting signals or calls thruout the office, use is made of buzzers, gongs and visible call systems. Of course the telephone system can be used for a certain type of call. Separate rings on the telephone can be established for each of three or four chief officials in the office. If one of these persons is wanted and is not at his desk, the operator sounds his ring on all telephones. If he does not hear the ring himself, somebody who is near the telephone will hear it and inform him.

Visible call systems, using plain or colored lamps, can transmit any simple code of signals by means of a combination of flashes. Such signals have the advantage of silence, but they are not as certain to attract attention as the audible signals, the buzzer and the gong. Nor are the visible signals so effective in announcing time for starting and stopping the work, or—particularly—in announcing fire or fire drill. Therefore, even where a visible signal system is installed, it is supplemented with an audible signal system.

A synchronized clock system can almost be called a means of interdepartmental communication. It is an indication of interdepartmental coordination.

19. *Other methods of communication.*—Among the methods of interdepartmental communication are the dictagraph and telautograph, both of which have been described in detail in Chapter V.

REVIEW

Why is it necessary to have well-planned methods for intercommunication between departments? Describe the various factors that should be taken into consideration in making a survey for intercommunication systems.

Why is a well-planned mailing system absolutely essential in a large office? How may a delay of ten minutes inside mean a delay of twenty-four hours in outside delivery?

Why are oral messages apt to cause misunderstandings?

May mechanical "office boys" be substituted entirely for office boys themselves? If not, to what extent?

CHAPTER XII

OFFICE MANUALS

1. *Office routine.*—Office routine comprehends the detailed operations of all the departments under which the activities of the office may be divided. It is wise to reduce this to definite rules and regulations, and these are communicated to the employe in the form of manuals.

Manuals are of two kinds; special and general. The former contains the standards and practices of some special department. A study of such a manual will reveal points of procedure analogous to those which have been discussed in the preceding chapters. Here, however, the discussion is not pro and con but has led to a definite series of rules. The consideration of those rules will suggest to the attentive reader alternative procedure in many cases, and will often suggest the motives which have led to the procedure actually adopted.

2. *Scope of departmental manual.*—Inasmuch as a departmental manual is to serve the purpose of training new people to carry on any part of the department's work, it should be in great detail, with complete exhibits of the forms discussed and used.

The advertising department of one organization, for example, has in its manual eight chapters covering two hundred pages of typewritten matter. This advertising department also handles the mail-order work of the company, and the following table of contents of its manual may prove enlightening as to the extent of detail covered in a departmental manual.

ADVERTISING DEPARTMENT MANUAL

Chapter I—Introduction

A—Functions
B—Personnel
C—Relation to other Departments

Chapter II—Securing Leads

- A—Directly by Advertising
    - 1—Advertising Routine
        - A—Copy
        - B—Selection of Mediums
        - C—Payment of Bills
        - D—Tracing Results
    - 2—Leads from Advertising
- B—Indirectly thru other sources

Chapter III—Securing Orders by Mail

- A—Advertising Department Routine
- B—Division of Leads
    - 1—Sales
    - 2—Straight Mail
- C—Carding of Leads
- D—Operation of Follow-up System
    - 1—Symbol System Used
    - 2—Regular Follow-up
    - 3—Canadian Follow-up
    - 4—Foreign Follow-up
    - 5—Special Letters
- E—Replies

F—Routine Upon Receipt of Order
G—Notification of order to Salesmen

Chapter IV—Securing University Orders

A—Policy in Regard to University Orders
B—Follow-up System Used
    1—Plan
    2—Complimentary Material Sent
    3—Special Letters
C—University Files and Catalogs
D—Routine on Receipt of Orders
E—University Card File
F—Book-Store Agreement.

Chapter V—Securing Publicity

A—Newspaper Publicity
B—Convention Publicity

Chapter VI—Relation to Other Departments

A—Sales Department
    1—Selling Equipment
    2—Ad Books
B—Printing Department
C—Purchasing Department

Chapter VII—Advertising Records, Reports and Charts

A—Advertising Records and Schedules
    1—Daily Returns from Advertising
    2—Returns from Advertising Mediums
    3—Returns from Advertising Copy
    4—Record of work done by members of the Department
    5—Returns from Follow-up and Dictated Letters
    6—Daily Record of Leads
    7—Daily Record of Mail Orders
    8—Advertising Estimate and Insertion Schedule
    9—Copy Schedule by Months
    10—Copy Schedule by Magazines

B—Advertising Reports
    1—Daily Report Giving Analysis of Advertising Leads
    2—Weekly Reports of Returns from Advertising
    3—Monthly Reports of Departmental Constructive Work
    4—Monthly Departmental Division of Time and Report of Leads Received (for Accounting Department)
    5—Weekly Summary of lateness in Clerical Department
    6—Monthly report of returns of Follow-up

Chapter VIII—Advertising Files

A—Contents of Files
    1—Advertising Files
    2—Clubs
    3—General
    4—Improvement Folders
    5—Publicity
    6—Samples
    7—Endorsement Letters
    8—Magazines
    9—Follow-up Records

3. *The general office manual.*—The general manual is of wider scope. Its purpose is to combine in a single volume rules and regulations applicable to all employes. It has an important place in the conduct of office work and may be properly considered here, not only for its own sake, but also because it forms a convenient transition to the subject matter of the succeeding chapter in which matters are discussed which concern the entire business organization.

The office manual usually begins with a statement of the ideals which govern the conduct of the company.

Every concern that sells a commodity or a service appeals to the public to buy on the ground that the public will derive advantage or be benefited by the purchase. It is right that this ideal should be communicated to the office force; every concern wishes its employes to feel that they are doing more than earning their wages: they are engaged in giving the public useful service.

Next, the office manual describes, perhaps, the product or service that is sold, the raw materials of which it is made, its processes of manufacture, its method of distribution, its markets. It is valuable for members of the office force to feel that they are parts of a great institution and to realize the nature and scope of the work in which they participate.

The office manual should contain a list of all employes in the office, arranged by departments and also alphabetically. To foster mutual knowledge of the office force and the selling organization, a list of the salesmen with the territories they cover is not without place in the manual.

The functions of the different departments of the office should be described so that each person may realize his or her place in the whole.

Finally, the manual should contain a large collection of "Office Information and Instructions" embodying the main rules and regulations which govern attendance and conduct, as well as information regarding the office house organ, merit and demerit systems, social activities and clubs, study classes, emergency instructions for cases of injury or for evacuation in case of fire.

4. *Marshall Field manual.*—The purpose of the office manual is admirably expressed in the opening paragraph of the office manual of Marshall Field and Company of Chicago.

INTRODUCTION

To do the right thing, at the right time, in the right way; to do some things better than they were ever done before; to eliminate errors; to know both sides of the question; to be courteous; to be an example; to work for the love of the work; to anticipate requirements; to develop resources; to recognize no impediment; to master circumstances; to act from reason rather than rule; to be satisfied with nothing short of perfection.

The important part of any rule is the spirit of it. This is gained by understanding the wisdom and necessity of it, and not by mere obedience because it is a rule. No rule seems hard when we see that it is wise—worked out from experience.

The object of these rules is not to abridge the rights of any one, but to point out the plan which we believe to be the wise one to follow. The traveler making his way over unaccustomed roads is grateful for the guiding post which tells him the way to his destination—he never complains that the sign at the crossing tells him to go the up-hill way, for he is glad the sign is there, and obeys it usually because he knows he is on the right road.

We wish you to see, back of these rules, our earnest desire to conduct this great institution in the most harmonious manner; to give you the benefit of long experience; to save you the retracing of unguided steps; to enable you to grow in the knowledge of sound business principles and thus to become a credit to yourself and the house.

MARSHALL FIELD & COMPANY.

5. *Main rules of a typical manual.*—The rules and regulations embodied in the office manual will probably differ to a certain extent in any two concerns that might be chosen. Yet the rules adopted by one efficient office organization will be found of value to any concern.

The office hours are: weekdays from 8.45 A. M. to 12.30 P. M.; in the afternoon from 1.20 to 3.20 and from 3.30 to 5; Saturdays from 8.45 A. M. to 12.45 P. M. In July and August the hours on Saturday are from 8.45 A. M. to 12 noon. A gong is rung to indicate the time when work is to begin and when it is to stop. Three minutes before the starting gongs at 8.45, at 1.20 and at 3.30, a warning signal of two gongs is sounded to give employes time to reach their desks before the starting signal.

The offices are open from 7.30 A. M. to 6 P. M., after which hour no employe may remain in the office without permission from a Senior or Junior Officer.

Every attempt is made to guard against overtime, but every employe is expected to work overtime when required to. Pay is at the regular salary rate for the number of hours put in. When two or more hours of overtime are given, employes may go out to supper for half an hour and include that period under overtime, but no clerks are to do overtime work without knowledge and permission of the Junior Officer in charge.

Rest period.—In order to relieve employes of the so-called "afternoon fag," the company has established a rest period of ten minutes every week-day afternoon from 3.20 to 3.30. This break in the monotony of the routine is designed to make it easier and more pleasant to do efficient work the rest of the day. Both during this rest period and during lunch hour, employes are urged not to congregate in halls or reception rooms, to the disturbance of visitors.

Holiday vacations.—The holidays are New Year's Day, Lincoln's Birthday, Washington's Birthday, Decoration Day, Independence Day, Labor Day, Columbus Day, Election Day, Thanksgiving Day and Christmas. Vacations may be taken from July 1st to September 15th, and each employe who has been with the company six months receives two weeks off with pay. Those that have been employed three months receive one week. Chief clerks and their assistants have first choice as to when they will take their vacations. Assistant Staff Secretaries and Junior Officers may take their vacations any time between June 1 and October 1; Junior Officers have three weeks' vacation. Employes who have been engaged less than three months may take a week's vacation at their own expense, unless the pressure of work is so severe that they cannot be spared.

Securing supplies.—At 9 in the morning and at 1.30 in the afternoon the Chief Clerk of each department passes a requisition form for supplies from person to person. Every one requiring any supplies fills in the name of the article and the quantity desired, and initials it. The Chief Clerk O.K.'s these requisitions and they are filled in the stock room. The private offices are served by a boy who goes around each morning and makes a note of the supplies required. "Rush" requisitions can be filled at any hour of the day, but must be O.K.'d by the Junior Officer in charge of the department.

It is understood that all requisition slips are filed by departments and are examined from time to time to make sure that there is no unnecessary waste.

Petty cash vouchers, obtained from the cashier, must be made out for all petty cash items such as car fare, incoming express charges, etc. These vouchers must be O. K.'d by the employe's chief clerk, as well as by the officer in charge of the department, before reimbursement can be secured.

6. *Personal rules.*—Various emergency needs of the

office force are provided for in the office regulations. For example, postage stamps for personal use may be purchased against requisitions presented for payment at the end of the month. Umbrellas are loaned against requisitions but must be returned the following day. In this case the rule is established that a fine of ten cents per day be levied for overdue returns of umbrellas, the money thus collected being used to purchase more umbrellas. Personal telephone conversations outside of office hours are not forbidden, tho a warning is issued against abuse of this privilege, or indulgence in frivolous or unnecessary conversation. During office hours the telephone may not be used by the clerical employes without permission of the office manager or his assistant.

The office manual further contains the regulations, reproduced elsewhere in this book, regarding the company's house organ, the work report blanks which employes are required to fill out, the merit and demerit system and the suggestion system. In a section entitled "Health and Fire Protection," instruction is given for procedure in case of sickness, injury or fire. Finally, the social and educational facilities of the office are set forth.

7. *Personal conduct.*—An important part of an office manual is a set of suggestions regarding the personal conduct of the members of the force, the spirit of loyalty with which they perform their work and the consideration they show for others. The fol-

lowing are a set of "office instructions" of this sort, which are the result of long experience:

1. Study carefully the Manual describing the work of your particular department, and follow the instructions contained in it to the letter in all cases of routine character.

2. When you see an officer or head of a department busy, either with dictation or in consultation, don't interrupt him. Instead of standing beside his desk and distracting him from his work, wait for a more opportune time or send a memorandum.

3. THINK. Where possible, decide general matters of detail pertaining to your work, yourself, without taking up the time of the department head. If you know how a particular matter should be handled, do it. If in doubt, then consult the person directly above you.

4. Keep in the strictest confidence anything you may learn of the affairs of the company. Violation of this fundamental rule may be the means of determining the unfitness of employes, who may otherwise be capable, for positions of trust. Confidential affairs of one department should not be communicated to another department, nor should information about the business be given over the 'phone promiscuously, but by the authorized heads of departments.

5. Work quietly. Loud talking across desks or between departments should be avoided. It distracts others from their work.

6. Don't walk about unnecessarily. Whenever possible make one trip do for two or more.

7. Concentrate on your work. Unnecessary talking, anything which tends to take your mind off your work, should be avoided.

8. The employe who takes an interest in the company and is looking for appreciation of his or her work cannot be a clock watcher.

When you come to your work in the morning or at noon, go directly to your desk and prepare for your day's work.

Do not stop until 12.30 at noon and 5 in the evening, with the exception of the ten minute rest period mentioned. Then clean up your desk and leave it in perfect order.

Don't wait until quarter of nine to come into the office, and do not leave your work or make preparation to leave it until the gong strikes the luncheon, recess and closing hours.

9. Do not place current work in your desk at night, for if you do, and in case you are absent, there is danger of the work being overlooked. Instead always leave current work neatly arranged on top of your desk, with a weight on top of it if necessary.

10. Any employe detained at home unexpectedly, on account of illness or other emergency, should immediately notify the Junior Officer in charge of his or her department, either by telephone or messenger, reporting cause of absence and, if possible, date of expected return.

11. Employes should be dignified in their behavior. Do not skip, jump or run in the office and hallways. It makes a bad impression on visitors and on other employes and reflects on you personally.

12. A mistake is a sign of progress up or down the scale. When one is pointed out to you, do not display indifference, make excuses, or try to lay the blame on others when the fault is yours. Mistakes are shown you simply to help you to avoid making them in the future.

13. Don't touch the papers on another person's desk when he isn't there. You wouldn't care to have others go thru the papers on your desk in your absence.

14. Any article lost or found should be reported immediately to the Assistant Office Manager.

15. It is essential that all correspondence be answered promptly. Therefore, don't hold over any letters or memoranda from one day to another. Give every letter and memorandum the attention required on the SAME DAY you get it, and then send it along immediately.

16. Smoking in the General Office, and in the Stock Rooms, is forbidden at all times. The Smoking Room is located on the Fourth Floor just east of the Printing Room.

17. All official announcements to the Office Force are placed upon the permanent Bulletin Boards hanging in the General Office and in the fifth and sixth floor halls. Watch one of these boards daily. All memoranda, instructions and announcements of the employes' activities will be posted here. There is, in addition, a large removable Bulletin Board in the General Office upon which matters of interest to employes are posted from day to day. NO ANNOUNCEMENT OF ANY SORT SHOULD BE PUT ON THE BULLETIN BOARDS WITHOUT FIRST SUBMITTING IT TO THE OFFICE MANAGER.

18. A drinking glass is supplied each employe for his or her personal use. The individual paper cups are for the use of the officers and visitors only. During the summer months a boy passes around the office every hour distributing drinking water.

19. Paper towels have been placed in the wash rooms for the use of all.

20. Employes should not invite anyone who is not a member of the Organization to eat lunch in the office. Former employes are not permitted to enter the General Office without the permission of the Office Manager or his Assistant. It is also inadvisable to have friends or relatives call to see you during business hours.

21. The first impression gained by visitors is usually a lasting one. Therefore heads of departments and all employes should see to it that the office is always kept in a neat and orderly condition.

22. From time to time the chief clerk of each department is instructed to make an inspection of his or her department to be sure that all machines are properly taken care of, that all desks are kept in a clean and orderly condition; that desks and table drawers are not littered with papers and that the office is neatly kept.

23. Oral instructions or suggestions are often misunderstood or forgotten. It almost always saves time and insures accuracy to put these things in written form. They

can then be attended to at the proper time, without interfering with more pressing work. *Put it in writing.*

24. Every memorandum sent from one person to another in the office or to a salesman or branch offices, should bear the initials of the person sending the memorandum, and also the date on which it is sent. When an answer is written on the same memorandum slip, the initials of the person writing it and the date should also be jotted down in each case.

25. PLEASE NOTIFY THE OFFICE MANAGER OF ANY CHANGE IN YOUR ADDRESS.

8. *Keeping manuals up to date.*—For every change that is made in the routine in the department written instructions should be given to the clerks affected. A copy of such written instructions should be filed in a definite place so that when the time comes to revise the departmental manual all memoranda for changes will be on hand.

A still better way of saving the memoranda and revising the manual at stated periods is the method of keeping it in loose-leaf form. In such a case every routine is described on a separate sheet of paper. When a detail is changed that particular sheet is taken out and a new sheet properly dated is inserted in its place. In that way the manual is constantly kept up to date.

As a rule, it is best to place definitely the responsibility for keeping the manual up-to-date in one person. It remains the duty then of that person to see that the changes are properly recorded in all the copies used.

9. *Custody of manuals.*—It is usually unnecessary

and unadvisable to have a separate copy of the manual for each employe in the department. The most satisfactory plan provides for one copy of the manual to be in the possession of the chief of the department, one copy in the library of the company, if there is a library, and two or three copies for the use of the clerks in the department; these several copies, however, to be in the custody of the chief clerk.

The library, incidentally, should have a complete file of all the departmental manuals of the organization.

REVIEW

What is the purpose of an office manual?

What should be contained in a general office manual?

How would you insure knowledge of the rules of the house on the part of employes?

What should be contained in a departmental manual?

What is the best system for keeping all manuals up-to-date?

CHAPTER XIII

THE WORKER'S COMPENSATION

1. *The forms of compensation.*—In a broad sense the compensation of the worker consists of the sum of the advantages which he obtains as a result of his activity. Many of them are of a somewhat intangible character, but they are none the less important in determining the choice of an occupation, or in inducing the employe to remain in the position which he has taken. Some of these advantages are inherent in the nature of the occupation and it would carry us too far into detail to discuss them here. Others consist of comforts, conveniences, and opportunities for the employe which are broadly designated under the term welfare work, and these are discussed in another chapter. The present chapter is devoted to the financial compensation of the worker, whether it be in the weekly pay envelop or in the monthly check, or in money payments which are subsidiary to these and to some extent, at least, grow out of them.

2. *Wages and other payments.*—In considering the compensation of employes, it is not to be forgotten that what counts with the worker is the regular weekly or monthly payment as the case may be. The various extra payments which have been considered contri-

bute much to the temporary satisfaction of the worker, but permanent contentment can only be obtained when he feels that he is receiving a fair and just wage for the work currently performed. This has an important bearing on determining the proportion which may judiciously be observed between the regular payments and any other payments which may be made for any reason whatsoever. If the latter are considerable in amount, they may awaken in the mind of the recipient the idea that they are a large part of the wages whose payment has been withheld and deferred by the employer. The judicious management will exert itself to protect itself from the judgment of the worker. Nothing creates greater discontent than the feeling that the employer is unjustly withholding what is due the worker. Irregularities in payment are frequently more keenly resented than low wages.

3. *Piecework.*—So well-nigh universal in office work is the payment of wages and salary on a weekly or a monthly basis that the piecework system might, it would seem, go without mention in this connection. In very few instances has the introduction of straight piecework payment for office work been practicable. Generally speaking, the work of office employes is too varied to permit the introduction of a payment plan which presupposes that the worker will be engaged constantly on the same type of work and will repeat over and over again the same process.

One of the rare instances in which piecework payments were applied and applied successfully, was in the elaboration of the thirteenth census of the United States in 1910. One of the important operations in the tabulation of the population consisted in the transfer of the records from the population schedules by means of a punching machine to cards especially prepared for this purpose. Here the work of the operator consisted of identical units constantly repeated. Operators of these machines were paid at the outset like other Government employes by the month, but as soon as they became proficient in the use of them they were paid at the rate of a certain sum per thousand cards. The system proved entirely satisfactory to those who had the skill and the strength to make a large output. It was, however, the subject of much criticism which took the usual form that the piece rate was so low as to put an unreasonable strain upon the worker who wished to obtain a proper reward for the time spent in the work, and that the quality of the work suffered by the inevitable speeding up which resulted from this method of payment.

But if the piece rate finds little use in office work as the exclusive form of payment, this does not mean its underlying principle is wholly overlooked. On the contrary, its indirect influence on compensation for office workers is constantly increasing. Its indirect influence finds its expression in establishing normal tasks; accomplishment beyond the normal tasks may be rewarded by special payments, and where proper work records prevail they will always be taken into consideration in questions of promotion.

4. *Wage problems.*—With the hiring of the new employe the wage problems of the office manager have just begun. In making the initial rate he has not a wide margin of latitude. He must be governed by the general conditions in the labor market. Indeed he can never wholly escape from the influences of these outside forces. They condition wage increases and in some instances wage decreases. These, however, are general and not individual problems.

Each worker offers a problem with which the office manager must from time to time grapple. Wage increases with or without promotion in rank call for attention. Old fashioned office control, still widely prevalent, consists only in supervision, and is marked by an absence of definite work records. The head of the office has a general responsibility to see that the employe keeps at work, and that the work done is commensurate with the compensation. If it is a question of promotion or of a wage increase the decision is based on general considerations—the employer's estimate of merit. Such a plan often leads in the minds of the workers to the suspicion of favoritism and it is doubtful whether any system of management however skilfully devised will entirely root out such suspicion. By standardizing procedure and work much can be done to mitigate this source of discontent.

5. *Wages determined by the type of services.*—Generally speaking, the first thing that determines

the wages paid is the type of service rendered. It would scarcely be necessary to mention anything so obvious if there were a general recognition of the need of distinctly defining the types of work which the office requires. Because this is not recognized and because functions frequently overlap much discontent arises.

The first requisite of a satisfactory wage system for an office is job analysis and classification. What is the exact work required of each class of employe and can it reasonably be expected of them? The United States Bureau of Labor Statistics has recently brought out a pamphlet on the classification of office workers which marks the progress which has been made in standardizing employments. With this as a guide an office manager could readily group the employes under his charge according to their essential occupations.

The second step is the fixing of definite salary limits for each class of work. If reasonable limits appear to the manager to give too large a spread it is notice to him that the classification is not sufficiently detailed. With such a definite salary schedule well understood among the employes the words transfer and promotion acquire a definite meaning. Obviously in such a case they represent changes from one type of employment to another.

To allow employes who draw widely different salaries to work side by side at closely similar work is wrong in principle and vicious in practice. Nowhere is this more strikingly illustrated than in the national civil service. The whole range of minor employes are designated simply as clerks and are divided into five or six salary classes. The allotment by Congress of clerks to the different offices follows in a large measure traditional lines, and there is only a rough approximation of the number of higher paid and presumably better qualified clerks to the actual needs of the office. Hence the greatest disparity in the type of service and grade of service which is rendered by employes receiving the same pay in different offices and indeed in the same office.

6. *Wage variations dependent on service.*—In determining the wages of employes of equal rank a factor which often plays a prominent part is the length of service. Other things being equal the employe who has been long in a given service, who is thoroly familiar with it, is capable of rendering a greater service than one who is comparatively new to the work and who lacks experience. Employes generally recognize the justice of wage distinctions in such cases. There is some danger that employers will overlook the qualifying clause "all other things being equal," and there is a practical certainty that employes will do so.

As a principle in fixing wages, length of service is a useful guide only when it is kept within narrow limits, in other words where there is a distinct and well understood classification of jobs. Then it may be an effective measure provided there is proper supervision which keeps all workers up to a reasonable service to distinguish between employes of equal rank.

The application of the principle of classification, modified by considerations of seniority within each class, is shown in the following salary schedule of an insurance company.

Class E—Boys:

$360 for the first year, $420 for the second year, and $480 for the third year, provided these respective increases are merited. Advances in compensation are automatic up to and including the third year.

Class D—Junior Clerks, Men and Women:

$480 for the first year, $540 for the second year, $600 for the third year, and $660 for the fourth year, provided these respective increases are merited. Advances in compensation are automatic up to and including the fourth year.

Class C—Senior Clerks, Men and Women:

Minimum salary $780, with any advancements fixed by the Salary Committee, in no case to exceed $1140 per annum. Advances in compensation in this class are on recommendation only.

Class B—Special Clerks, Men and Women:

Minimum salaries $1200 per annum with various maximum fixed by the Salary Committee, in no case to exceed $2000 per annum. Then the advances in this class are on recommendation only.

Class A—Technical and Supervisory Clerks,
Men and Women:

Compensation is in excess of $2000 per annum with the minimum and maximum salaries fixed by the Salary Committee. Advances in compensation in this class are made on recommendation only.

7. *Wage variations dependent on work performed.* —Wage variations among persons of equal rank based on length of employment, can of course only be justified on the theory of more efficient and more valuable service rendered by the older employes. Length of service offers a rough, sometimes a very rough, measure of efficiency. Oftentimes because of the nature of the work done it appears as the only practicable measure of efficiency which can be adopted.

But the same careful analysis of office work which is being used to determine a classification of employments, is bringing to light the possibility of establishing standard performances for each type of work. The condition upon which standard tasks can be set is the uniformity of the operations involved. Elements which disturb the regular routine and flow of work can very frequently be removed by assigning them to another worker. In most offices the same typists write the letter and prepare the envelop. If the letters are short the typist has many envelops to prepare and this may interfere with accomplishing the task assigned. To avoid this result the preparation of the envelop may be made a separate operation performed by a clerk who does this work exclusively.

Typing, perhaps, of all clerical work lends itself most readily to the establishment of standard tasks. One concern measures by lines and fixes 900 lines of 5¼ inches in length as a day's task. The Willys-Overland Company has a standard of 6000 square inches per week of 44 hours. Four square inches is allowed for name, address and salutation on each letter, and two square inches for addressing an envelop. In setting standard tasks care must be taken to maintain quality as well as secure quantity. This usually takes the form of deductions for mistakes.

When standard tasks are thus established, it is right and fitting to make a special recognition of work which exceeds the standard. The forms in which this may be done are most varied. The various new forms of wage payments which are discussed in the volume on "Plant Management" will offer many suggestions. There seems to be a disposition to consider that an extremely nice adjustment of the extra payment to the extra work performed smacks too much of factory methods and the common practice is to make one or two gradations of extra pay which are sometimes designated as prizes. By whatever name they may be known they introduce to some extent the principle of varying the compensation of employes of equal rank in accordance with the work performed.

This principle is of wider application than many office managers are willing to admit. They grant readily that it can in some instances be applied to typing but can see no further utility in it. This attitude may in some cases be justified, but more frequently it springs from inertia. They are unwilling to take the time and trouble necessary to study the clerical work in detail and to seek for means of reducing it to definite standards.

8. *Extra payments.*—Where there is no effort to measure work specifically there is sometimes an attempt to gauge the efficiency of the employe by more general indications. In this case what might for want of a better term be designated as office habits are carefully noted and recorded. This concerns such things as attendance, tardiness, visiting in office hours and the like. In general it may be true that employes who have had no bad office habits do more work than those who are less amenable to the necessary office discipline. But there seems to be some incongruity in paying for a person's time and then making an extra payment because you get what you paid for.

If a system of extra payments based wholly upon attention to duty does not seem well founded, it does not mean that these things are not important. They are of the highest importance and it is very feasible to take cognizance of them, in the form of merits and demerits as subsidiary elements in a payment scheme based upon a standard accomplishment.

9. *Gratuities.*—Gratuities based on salaries are quite different things from extra payments based on work, tho to both of them the term bonus is frequently applied. Strictly speaking a bonus is a payment beyond what is formally due. When the wage system provides a specific payment over and above the stated wage, this extra payment must be regarded as a part of the wage contract, even tho its exact amount is not determinable in advance. If it is

earned by special effort it cannot be withheld without breach of good faith.

The bonus on the other hand is a pure gratuity usually made once a year, generally at the Christmas season. It is commonly a percentage of the salary paid during the previous year, usually with a maximum amount. Generally only those who have been in the employ of the company for the entire year participate in the distribution. The designation of the bonus as a Christmas gift implies that it is no part of the regular payment. It may be a substantial addition to income in concerns when the bonus has become a confirmed habit with the management, but it remains a habit of the employer and never becomes a right of the employe.

Sometimes a nicer adjustment of the amount of the bonus to the merit of the individual is attempted. In such cases there is what might be called a standard bonus to which for various causes additions may be made. There is a beginning of such an idea when the bonus is made applicable only to those employes who have been in the service of the company for a certain period of time. It may be extended to those who have been six months with the company or perhaps a year or sometimes indeed it may be confined to those who have been two or more years in the company's service. A further amplification of this idea is found when to the standard bonus additions are made proportioned in some way to the length of time the employe has been in the concern's employ. It is clear also that where the office records provide a careful system for rating employes, an extra bonus can be given to those who had obtained the higher ratings.

There are many other amplifications which might suggest themselves to the mind of the ingenious manager, and they might go far to satisfy his sense of justice. It must, however, not be forgotten that the more complicated the system is which is introduced the less satisfactory it becomes to the employe. If he is unable to ascertain by simple rules how the amount of his bonus is determined, he is very apt to suspect that in some way or other he has been discriminated against. Of course, any dissatisfaction in the amount of the bonus goes far to neutralize whatever good effects may be expected from the bonus itself.

Such a bonus must be regarded as an investment of the management in the good will of its employes. It will be noted that so far as the latter are concerned, it is usually a general rather than a specific reward, since any attempt to make an adjustment of the amount received to the special merit of each recipient is likely to result in the difficulties considered in the preceding paragraph.

10. *Profit sharing.*—Such monetary distributions as are described in the preceding paragraph are not infrequently spoken of by employers as a species of profit sharing. It will be found quite often that many so called profit sharing plans are somewhat

of this nature. Whatever the excellence of such methods, it may be well to point out that in a strict sense of the word they cannot be considered as profit sharing.

The essence of profit sharing is that the amount of the payment distributed to the employe depends in a minor degree on his work, but chiefly on the profits earned by the firm. In true profit sharing the proportion of the profits which is to be distributed is fixed in advance and with the varying fortunes of the enterprise the amount will vary from year to year. When the amount has been determined, the share which will go to each employe can then be fixed according to whatever plan may have been previously adopted. There is room for all sorts of variations. Sometimes all workers are included and sometimes only specified classes. Where there are limitations, the distribution is often confined to the employes in executive or semi-executive positions. The underlying idea of such a limitation is that only persons of such positions, who can exercise some influence upon the business policies of the concern, and thereby help to determine the profits, should have the privilege of sharing those profits.

The general theory of profit sharing is to the effect that the privilege of sharing in the profits will spur all concerned to a greater effort and because of this greater effort extra profits will be earned. In some cases, these results may be obtained, but if it does occur, the profits, like the rain, fall on both the just and the unjust. In other words, those who do not respond to the incentive presented, share equally with those who do. The fundamental drawback of true profit sharing, however, lies in the fact that the profits which may be earned depend not only upon individual and collective efficiency, but also on market conditions. Whatever view may be taken of the nature of profits, it is clear that they are not governed by the same rules as the compensation of labor.

Profit sharing as above described is so little used in office work that for its own sake it scarcely deserves mention. A consideration of its features, however, will serve to show that many of the arrangements which are properly designated as profit sharing do not in reality belong in this class, and will bring out clearly the important distinction between rewards which are measured directly by the application and energy of the individual and those which are dependent upon the more or less direct profits of the concern.

11. *Other money payments.*—The matters heretofore considered do not exhaust the monetary advantages which may come as a result of the employment to some of the workers. Modern business has introduced in many offices a variety of other devices designed to improve the positions of the workers, which in some cases involve money payments. Such, for example, are arrangements which are made to give insurance to employes. This insurance may give sick benefits or death benefits or both. It may

be arranged thru a mutual benefit association and thru the group insurance policy. In the same class also comes the pension system.

In so far as the whole or a part of the cost of these arrangements is borne by the employer, he regards them as a part of his labor cost. But then, this would be true in like manner of the whole group of office activities which are included under the terms, welfare work. It is important, however, to note here as elsewhere that labor costs and wages are not one and the same thing, that the employer's view point of them and the employe's are distinctly different.

The employe regards as wages or in the broad sense compensation for labor only those money payments which come to all employes of the same class alike and in which all participate. The employe who is never sick may be willing to pay a reasonable sum as provision against sickness. Unless he is sick it appears to him as an outlay rather than an income. If he leaves the employ of the company, neither the death benefits nor the pension which the company provides are a source of income to himself or his family. These things may induce him to remain in the employ of the company which offers such advantages, but it is clear that a large part of the employes of the company will never benefit from them directly.

For these reasons, a consideration of all of these eventual payments is excluded from the discussion of the worker's compensation and is reserved for the consideration of welfare work.

12. *Wage increases.*—Employes who have remained for any length of time in an office naturally desire to have their salaries increased. They feel that they are worth more to the organization than they were at first. The plan of adjusting salaries once a year is inelastic, but it is still popular. It is often combined with secrecy, in order to minimize the natural discontent of those who are not included in the salary increase. This plan does not take due notice of the fact that there is always a certain percentage of the employes who have been less than a full year in the service. An alternative plan is to adjust salaries on the anniversary of entrance.

Yet even this modification of the plan is open to the objection that the increase may not keep pace with the achievement, which is the point to be kept in mind. Some employers delay the increase until they are sure that the moment has arrived when, if the increase is not granted, the worker will be lost. Besides the injustice of such a scheme, they may miscalculate the time and lose a valuable worker, with the consequent cost of replacement. Where no attempt is made to keep records of efficiency, a "raise" is often attained by the few who have the nerve to ask for it, which puts a premium upon qualities which are not necessarily synonymous with efficiency.

There is advantage in the policy of considering wage increases oftener than once a year. It increases the feeling that a display of special effort or ability does not have to wait too long for recognition. It is just as important to know who are not deserving an increase as it is to ascertain who are. A clerk whom the manager is forced to ignore when advancement is being given, should be given a chance to render himself worthy of it, or he should be eliminated if he is incapable. Stationary wages and contentment do not usually go together. No matter how conservative an employe may be, his or her personal expenditures are subject to a regular rise, and if there is no corresponding increase in earnings, eventually the disparity between income and outgo is certain to become intolerable

It is, therefore, to be recommended that questions of wage increase should be considered only at certain regular intervals. If the matter is taken up irregularly by the management, the employes will consider that they can raise the question whenever they see fit. This is too often true, but it is a bad policy to have the matter of wage increase depend upon the initiative of the employe and his persistence in the matter. To do so keeps the salary question, one of the most fruitful sources of discontent in the office, awake at all times pestering the employer and keeping the employe thinking more about his rights and privileges than about the work he is hired to do. Many concerns, however, find it desirable to take up the question of wage adjustment quarterly. This insures a prompt consideration for the employe who is making unusual progress and limits the consideration of a vexatious question to a definite number of times per year.

REVIEW

Why is piece work not adapted to the payment of office employes?

How may the time wage be modified by considerations of seniority or excellence of service and what are the arguments for such modifications?

What is a bonus?

What is profit sharing? Is it applicable to office work?

Are pensions and the like to be considered as a part of wages?

What is a judicious policy to be followed in regard to wage increases?

CHAPTER XIV

WELFARE

1. *What is welfare work?*—It is getting to be commonly recognized that welfare work pays. That is, it results in an increase in the quantity or quality of the output which more than offsets the cost of welfare institutions. These institutions make the working force more contented, reduce labor turnover, and by holding the organization intact, save the employer from those losses occasioned his competitors in these days when workers as a rule are lightly anchored.

Some one has said that man is constitutionally and by inheritance a lazy animal, and that work is repugnant to him. If this be true we should expect to see it manifested in those workers who are engaged in routine tasks that cover the same ground day after day. At any rate, welfare work is an attempt to take the sting out of the grind of daily work by providing pleasant and safe working conditions, by teaching employes how to get the most out of their life outside the office and how to care for their health, as well as by aiding them to get those forms of social life which every normal human being craves. In some cases, welfare work even extends into the field of insurance—provision for those emergencies of life which are certain to occur, but for which only the exceptional worker provides.

2. *Classes of welfare work.*—Welfare activities may be divided into four main groups. The first group provides the fundamental physical conditions for the comfort and safety of employes, such as temperature, fire prevention or "safety first."

The second group of welfare institutions is designed to affect the health and efficiency of the employes during non-working periods. This group includes the following subjects: fatigue and rest periods, rest rooms, lunch rooms, outings, vacations and general health education for the office force.

The third group of welfare institutions is not designed to affect the physical health, but to satisfy the mental and social aspirations of the office employes. This group includes clubs and other social or recreational organizations, as well as educational groups and libraries.

The fourth group of welfare institutions is designed to affect the financial welfare of the worker, and includes such subjects as thrift and insurance.

The first group, then, provides the external conditions which insure to the employes that health and comfort which are necessary if they are to do good work. Many of these matters, such as lighting, ventilation, and office equipment, have been treated in Chapter II, "Office Location and Layout." The others will be discussed here.

3. *Office temperature.*—A danger to be especially

guarded against in American offices is over-heating. In our offices, as in our homes, we have become accustomed to from five to ten degrees too much heat. In Chapter II it was stated that 68 degrees is the temperature of efficiency. It is instructive to know the reason why the human body will not work well when it is too warm. The muscles of the body are like the motor of an automobile. The explosions of gas in the motor result in push-energy, but they also result in heat-energy. Excessive heat-energy injures the cylinder walls. That heat must be taken away, or the engine will be damaged. To reduce excessive heat is the purpose of the radiator and the water in the coils for circulation around the cylinder. The prevention of overheating allows the maximum creation of useful energy.

So with the human body. The muscles create work-energy and they create heat. The heat should escape, radiated from the skin. If atmospheric conditions are such as to hinder the radiation of that heat, the production of work-energy slackens. The human cylinders get overheated. When the room is already hot, heat is not easily radiated from the body. Heat stays and clogs the working machine.

That explains the fact that the most energetic races are developed in temperate climates. Keep your rooms in the temperate zone. A proper degree of humidity also is important for the efficient office. Excessive dryness is to be avoided in winter when artificial heat is used. A humidity of 50 should be sought. In some offices a sort of humidor contrivance —open framework containing water and strips of felt—is put on top of the radiator in each office to prevent just that dryness in the air.

4. *Fire prevention.*—Consideration of fire prevention would be rendered necessary by the collection of valuable business documents in an office, if it were not rendered still more imperative by the congregation of masses of employes, sometimes in quarters not especially constructed with an eye to safety. The exercise of care in fire prevention, and knowing what to do in case of fire, therefore, are very necessary precautions. Employes must be expected to know the location of fire extinguishers and how to use them in case of emergency.

In each establishment, rules for fire protection should be published, and there should be insistence that they be understood and scrupulously obeyed. All should be familiar with the fire signal and prepared to follow a definite line of action. The location of fire pails, properly filled with water, should be known to those assigned to handle them, and the method of attaching the hose should be practiced until there is no possibility of delay in handling it.

A definite set of rules should be established for each floor (if there is more than one), and for each a fire-marshal and assistant should be appointed. Certain individuals should be made responsible for the safety of valuable papers. Fire drills must be held periodically without warning, and all should practice getting out of the building under the leadership of the acting assistant fire marshals. By mechanical fire drills, the spread of fire can be prevented, and still more important—panics among the office force can be avoided.

5. *Safety for the office force.*—Every office should be prepared to take care of accidents when they occur to its workers. The vast majority of accidents are trifling in themselves and for that very reason—or because they are regarded as trifling—there is frequently danger of blood poisoning unless they are attended to promptly. Most accidents are the result of carelessness, and a reasonable amount of education will prevent them.

Slippery floors and stairways are a frequent hazard, removable by the use of linoleum and non-slipping treads. In handling papers at the desk, pins, pens, pencils and splinters may cause puncture wounds that are difficult to heal and that interfere with work.

Care should be taken to see that electrically driven office machines such as pencil sharpeners, duplicating or adding machines are handled carefully. Accident prevention is a suitable topic for occasional discussion or lecture.

First aid cabinets should be provided and several employes of both sexes trained in administering first aid. These cabinets should be well stocked with medicines and bandages.

The next group of welfare institutions are designed to further the physical well being of the employe during periods when he is not at work.

6. *Fatigue and rest.*—The ever increasing intensity of work has made a study of the phenomenon of fatigue an imperative necessity. It is now well recognized that rest periods, instead of being a hindrance to output, in reality contribute to its increase. The subject has demanded increasing attention since Frederick Taylor, the able exponent of scientific management, demonstrated that men resting at certain determined intervals were able to carry four times as much weight in the course of a day as those who worked without such rest periods.

The mere physical task of holding one's hands in the position necessary for typewriting becomes an intolerable burden after a time. It has been shown that complete relaxation for five minutes without moving from the chair decidedly increases the typist's output of work. Fatigue is nature's warning signal that the limit of physical endurance is being approached. Every additional unit of work requires a superexpenditure of nervous energy. Fatigue is induced by monotony and by the speed and noise—the usual conditions in the office. Rest periods are particularly valuable in repetitive work. Operators of dictating machines, stenographers and typists, all benefit physically if they are allowed to relax for a few minutes during the morning and afternoon, according to the intensity and monotony of their work.

7. *Lunch rooms.*—Many large offices have added to their responsibilities of operation by providing lunch for their employes. Even in populous cities

where lunch rooms in great variety are accessible, companies have found it not only desirable but necessary to provide wholesome food at either a nominal cost or free, in order to make sure that employes are properly nourished and that they return to their work on time. Good food reduces fatigue. Poor service in local restaurants delays the office workers, often preventing them from getting the proper amount of nourishment.

One large company serves a complete luncheon daily, without charge, to all employes. The dining room is located on the upper floor and is admirably lighted and ventilated. The kitchen, located on the roof, is spacious and clean. It is provided with all modern labor-saving devices. The pantries are excellently equipped and permit rapid service. The meals are wholesome, consisting of soup, choice of meat or eggs, vegetables, milk, tea or coffee. Rice and milk or crackers and milk are served to those who do not eat meat. The cost of the meals to this company is about twenty-five cents each. The company realizes that many workers have only limited earnings, and that if they are required to economize, it is more than likely that the saving will be made in the mid-day meal. The company luncheon prevents this. The luncheon is not regarded as a gratuity, but rather as a complement to the wages, even tho these are as high as the wages paid to others in the same line of work.

One organization which has no lunch room of its own details an office boy to procure light lunches at the expense of those who want them. Slips are passed around in the morning on which the employes jot down what they want. These luncheon slips are later collected together with the money. The luncheons are distributed just before the luncheon hour.

8. *Rest rooms.*—Club and rest rooms are increasingly frequent in large office organizations. The club room can be used for committee meetings and be furnished with easy chairs, tables and writing materials. A committee of employes, under suitable direction, is usually appointed to see that the rooms are properly kept and that employes are encouraged to use them. Cards and smoking are sometimes allowed, but not gambling.

Where there are many girls, a matron has charge of the rest room, and couches are provided. The room is open all day. In a few places, light refreshments are served at a nominal charge. In some establishments the rest room is most attractive. It may be placed on the roof and be something in the nature of a sun parlor. Hammocks and easy chairs are at the disposal of those who wish to use them. These conveniences are usually arranged adjacent to the dispensary.

9. *Outings.*—An annual outing gives the members of a large organization an opportunity to get better acquainted with each other. The outing is organized by the selection of a committee responsible for its success. Other committees consisting of a few individuals from each department are appointed for the pur-

pose of arranging for transportation, programs, refreshments, baggage, etc. Each committee works out its plans, and a committee of the whole secures coordination. The transportation committee decides on the means of conveyance, the program committee designs the program for the day, including games, music and dancing. The company usually shoulders the expense of transportation and entertainment as well as the cost of the prizes to be awarded to the winners of the competitions. An official of the company is generally on hand to present the prizes and deliver a message of cooperation.

10. *Vacations.*—The chief, and in many cases the only, provision for the welfare of employes is the annual vacation. The spiritual and physical value of a vacation is due to the fact that few can work efficiently without having periodically a complete rest. Most workers, however, do not really know how to spend their vacations. The company in its own interest should endeavor to help them spend it in a sensible way.

Employers who are sensible of the value of a rational vacation will facilitate the hunt for good places. In the fall a meeting is held for the purpose of exchanging experiences. Employes are encouraged to compare notes, discuss expenses and describe the advantages or disadvantages of various summer resorts. A memorandum of the facts obtained is kept on file for use at the next vacation period.

It is the duty of the office manager to arrange a schedule ahead of time so that the office workers can decide to the best advantage where to go and when to arrange for substitutes, in case this duty rests upon them. Such a schedule will have the weeks printed across the top of the page, and a vertical column containing the names of the employes. Opposite the names of the employes are indicated the dates upon which they desire to take their vacations. Generally the choice of periods is according to seniority and responsibility of position. In some offices where the absence of men in the busy season is a handicap, longer vacations are given if they are taken in the dull season. In one case where this alternative was offered, it was accepted by 90 per cent of the force. In a few offices where the nature of the work permits, all are given their vacation at about the same time.

In arranging a vacation schedule, jealousy may be aroused unless strict attention is given to seniority and length of service. Office workers are as a rule given two weeks' vacation with pay, provided they have been at least one year in the service. Some firms lengthen the vacation according to the length of service. One week is given for the first year, eight days for the second, and so on up to six years' service, which entitles to two weeks' vacation. A large insurance company has adopted the following rules concerning vacations:

> Each employe in the service of the company prior to January 1 of any year, whose attendance record has been satisfactory, is entitled during that year to two weeks' vacation

at full pay. If the day of employment is prior to March 1, one week's vacation is given. Those employed subsequent to March 1 will not be entitled to any vacation during that calendar year.

While vacations will be so arranged as not to interfere with the office routine, arrangements will be made as nearly as possible to the satisfaction of the vacationists. Where the dates chosen conflict, preference will be given to seniority of service.

No employe is allowed to forego his vacation of any year for the purpose of adding it to the length of vacation in any succeeding year.

Employes whose records of attendance have been satisfactory, and who have been in the employ of the company for five or more successive years at the time their vacations begin, provided the date of appointment was prior to October 15, will be allowed extra vacations as follows:

After 5 years of service, 1 day.
After 10 years of service, 3 days.
After 15 years of service, 1 week.
After 20 years of service, 2 weeks.

Employes will not be charged with holidays occurring during the *extra* vacation period.

In order that vacations may not interfere with the office routine, the following rules must be observed.

1. Employes may not be excused before the expiration of regular hours on the last business day prior to the first day of vacation.
2. The position of an employe failing to report at the expiration of vacation will be promptly filled. Any extension of the vacation period will be classified as a leave of absence and must be approved by an officer of the company in advance of the vacation.

Employes entitled to vacations of two weeks or less are expected to take their entire vacation at one time. In exceptional instances, particularly where the work of a department may be interfered with, this rule may be modified upon the written approval of the officer.

Employes who are entitled to more than two weeks' vacation may take the additional days over and above two weeks at such times as they wish, provided it is done with consent.

Absence of less than one-half day may not be charged to vacation.

11. *Standard holidays.*—In addition to a properly arranged vacation schedule, there should be a definitely understood list of holidays, upon which employes may expect to be free from work. One of the chief pleasures of a holiday is the joy of anticipation. In some concerns there is a tendency to rearrange holidays to suit the demands of business. Instead of having two holidays in February, which is a short and often busy month, one is deferred until a convenient date in April.

12. *Health education.*—Many are still profoundly ignorant of those simple rules which do so much toward preventing sickness and establishing health. Office work is necessarily sedentary and confining. Few employes know the benefits that can be derived from a little ordinary exercise. Information on hygiene is now given in many offices, generally thru the medium of a qualified physician, who is responsible for ascertaining the physical condition of each employe and maintaining or improving it. This physician, who has the confidence of the workers, periodically talks on various aspects of the subject in plain, non-technical terms. Employes are informed, for example, of the importance of proper mastication, the care of the teeth, the value of drinking water, the avoidance of bad habits, late hours and the adoption

of suitable courses of exercise. Bulletins containing information of this kind may be distributed. Employes are also instructed in rendering first-aid.

Certain outside agencies, notably the Life Extension Institute, provide full courses in personal hygiene for office and industrial workers.

The large office organizations generally have their own physician, exclusively employed or on call. Where large numbers of girls are employed a nurse is present to attend to such simple cases as do not need the service of a physician. Some companies insist on regular physical examination, not only to prevent the employment of those who are physically unsuitable, but also to maintain employes in good health. The physician's task in some cases is extended to a very thoro supervision over working conditions.

The Metropolitan Life Insurance Company issues the following rules of health:

FIFTEEN RULES OF HEALTH

AIR—

1. Insist on having fresh air in your home and where you work.
2. Wear light, loose clothing.
3. Spend part of your time in the open air.
4. Have lots of fresh air where you sleep.
5. Breathe deeply.

FOOD—

6. Don't eat too much.
7. Eat various kinds of food.
8. Don't eat much meat.
9. Eat slowly—chew your food well.

HABITS—

10. Have your bowels move each day.
11. Stand, sit and walk erect.
12. Don't dope yourself with drugs.
13. Keep away from catching diseases.

ACTIVITY—

14. Work hard, but play and rest, too.
15. Be cheerful. Try not to worry.

13. *Protection from colds.*—An eastern office has on hand a supply of ladies' and gentlemen's umbrellas which it lends to employes when a storm comes up unexpectedly during the day. To secure umbrellas a requisition must be made out and must bear the O.K. of the chief clerk in charge of the department. An employe borrowing an umbrella must return it the following day. A fine of ten cents is imposed for each day that an umbrella is overdue. The money so collected is used to purchase additional umbrellas.

14. *Social welfare work.*—The next group of welfare activities aims at the satisfaction of the social instincts of the workers. There are three main classes: educational, recreational and social. These clubs are sometimes controlled by the employer, but more recently the tendency has been to place the responsibility for their conduct upon the employes for whom they are instituted.

Educational clubs are used primarily as a means of inducing the employe to take a more intelligent interest in the product or service of the firm, to increase efficiency and to foster a spirit of cooperation. They are also utilized to train men in general business methods, to enlarge their vision and to develop the investigative instinct upon which the improvement of business largely depends. Meetings of such clubs are held once or twice a week, and the membership is made up from among the more promising employes in each division or department. The meetings, especially when they deal exclusively with the business of the firm, are held on company time.

15. *Recreational clubs.*—The ideas of suitable recreation are usually restricted. Without proper direction, office workers seldom have the requisite knowledge and initiative to centralize their recreations. Some firms encourage exercise in the office during the rest periods, or in adjacent gymnasiums out of hours. Some large concerns have purchased land in the country where employes may assemble on Saturday afternoons for football, tennis or other outdoor sports.

In some offices during the colder months the windows are thrown open once a day while five or ten minute periods are devoted to calisthenic exercises. It is sometimes possible to provide facilities for recreation purposes on the roof of the office building. In one such case the firm has inclosed the roof with wire, so that the men at noon can play handball, medicine ball or basket ball, the equipment being provided by the company and stored in a game room on the roof. The Wanamaker store in Philadelphia has opened an "athletic field" on the roof of its large store, including a running track, ten laps to the mile, a sixteen yard straight-a-way, squash and tennis courts, and the necessary equipment.

Fully equipped gymnasiums are by no means unheard-of appendages of large office organizations. The Burroughs Adding Machine Company in Detroit has a completely equipped gymnasium and swimming pool. A gymnasium is easily converted into a club room for holding entertainments, dances and meetings of various sorts. One firm provides indoor golf for its employes, while pool and billiard tables and bowling alleys are not unusual. Swimming pools are generally an adjunct to the gymnasium, and showers are installed in connection with the pool. The "gym" is generally open at 7 P. M after work each day, and on Saturday afternoons. Instructors are in charge and direct the physical exercises.

16. *Athletics.*—Athletic associations are formed to encourage the office workers to organize baseball teams, tennis matches and other outdoor exercises. The annual membership dues are sometimes as low as one dollar a year, and all employes are free to join, tho compulsion is never exercised. Prizes are given periodically. It has already been said that certain offices in large cities, where space for exercise is difficult to obtain, have secured tracts of land in some accessible district where there is adequate space for every need.

Frequently a club house is erected, not only to house the equipment and caretaker, but also to provide a place where a certain number of employes may spend the week-ends or their summer vacations, rates for board being at cost.

17. *Special clubs.*—The management of social clubs is left, with but little supervision, in the hands of the employes who are responsible for the program and for the organization of activities. The members usually meet once a week, when an opportunity is provided for those in the different departments to get acquainted. Under the auspices of the social club, debating societies are formed, musical talent is encouraged, and dancing promoted.

Dancing is always popular. In some concerns music is provided and dancing takes place during the lunch hour, or one or two evenings during the week. In other organizations there is sufficient talent to provide a chorus or an orchestra, and the music so developed is furnished at the social gatherings.

Social activities may be placed under the management of a social director able to command the confidence and friendship of the employes. Clerks may be encouraged to avail themselves of the friendship of the director, to confide their troubles to him and obtain his counsel and direction. A patronizing attitude on the part of the management is a frequent cause of the failure of social clubs.

18. *Libraries.*—Some of the larger firms either establish a branch of the public library system in connection with their social service, or conduct a library of their own, where employes may study subjects pertaining to their work. In such instances, books, peri-

odicals and pamphlets that would otherwise be difficult to obtain, are made accessible. The employes are encouraged to improve their knowledge by means of courses in reading, the librarian undertaking to keep them in touch with the periodical literature on special subjects in which they may be particularly interested. Reviews are made of new books, and busy officials are saved the trouble of reading matter that may not interest them. An important commercial concern makes the following announcement:

> The library is for the use of all employes both in connection with their work here and in getting information of purely personal interest on business subjects.
>
> The library contains books, pamphlets, periodicals, newspaper clippings, indexes and reference books covering the various phases of business, such as Organization and Management, Economics, Business English, Advertising, Selling, Accounting, Transportation, Insurance, Investments, Banking, International Trade, etc.
>
> The aims of the library are (1) to collect books and pamphlets on the subjects of the greatest interest to our employes and their work; (2) to arrange and index this material by means of a card catalog and classifications so that not only can the librarian get the material in the shortest possible time, but the books and other material may be found and used by all without difficulty; and (3) to offer the services of the library staff in looking up information either here, in other libraries, or by correspondence with outside sources. The library is open from 8:45 A.M. to 5:30 P.M., including the luncheon hour.
>
> Upon request employes may receive regularly at their desks every issue of desired magazines. No book or magazine may be taken from the library unless it has been charged to the borrower by the librarian. All new books for the use of any department should be ordered thru the librarian. A

pamphlet obtainable in the stock room explains in full how to use the library.

19. *Insurance, pensions and thrift.*—Offices sometimes contain institutions which rest partly upon the initiative of the employes and partly on the management, which touch the financial welfare of the employe. Some of these take the form of a provision for the contingencies of sickness, old age and death. In these efforts, the initiative rests largely, if not exclusively, with the management, which sometimes bears the entire cost of the effort. In a few cases, the management confines its activities to fostering and promoting beneficial organizations, tho more frequently it also bears a share of the cost involved.

In the case just considered, the motive offered to the employe is what an insurance man would call that of protection. The further motive of insurance which is the accumulation of capital is also recognized by the employer in the encouragement given to thrift and saving. This, of course, rests with the employes themselves, and the employer can give only guidance and advice.

20. *Sickness benefits.*—Office rules in regard to the payment of employes when sick are not usually so strict as those which prevail in factories. Generally speaking, there is a more intimate and personal relation between employer and employed in offices than is the case in industrial establishments. This, together with the fact that the office output has never been so carefully measured as that of the factory, leaves a

certain amount of freedom to the employe in the matter of absence caused by sickness.

It is obvious, however, that there must be limits to good nature, and that the time must come when the absence of an employe is recognized as a serious impairment to the efficiency of the office. Payment of salary under such conditions will cease, even tho this naturally works a hardship on the individual. To prevent this, various plans of Mutual Aid Associations have been put into operation. Employers usually cooperate with employes in the establishing of a Mutual Aid Association, and in some cases not only provide the administration but pay part of the expense. The advantages of a Mutual Aid Society for the employes are that it can be carried out with the minimum expense, since the clerical part of the work is small and if the employer assumes the administrative part, it can be done without much inconvenience by the cashier's department.

The machinery for operating such an association is usually very simple, and a hustling secretary is generally sufficient to insure success. Some companies' membership varies from 50 to 80 per cent, but unless membership is sought and industriously canvassed, the association is not likely to become popular.

Few employes should be induced to take up membership on entrance. Compulsory membership is not desirable, since some employes may consider themselves already insured to the limit. The proper amount of dues in relation to the benefits to be derived is sometimes difficult to determine. Usually dues are from 10 cents to 15 cents a week for sick benefits amounting to about $10 a week after the lapse of a few days' waiting time. In such cases it is possible to pay benefits for thirteen weeks without endangering the stability of the association.

It is tactically a better arrangement to charge too much than too little. In the former case a surplus may warrant a distribution which will always give satisfaction, while the latter may call for assessments in case the funds run short. In order to encourage membership at an early date, it is customary to remit dues for new employes, who thus become more closely identified with the life of the concern.

It goes without saying that a mutual benefit association cannot be successfully maintained unless the office force is so large that risk is distributed over a great number of members. In the case of smaller organizations, outside insurance is preferable.

21. *Death benefits.*—Most of the mutual benefit societies which are recognized in business enterprises provide death benefits as well as sick benefits. The sums so provided cannot, of course, take the place of insurance as they are necessarily moderate in amount. Their chief purpose is to provide a small sum of money which is urgently needed for funerals and other expenses which death entails on the family of the worker. This being the main purpose of these benefits, provision is very frequently made that their

payment shall be as prompt as possible and their value is greatly increased by such provisions.

Far more important from the financial point of view to the families of the employes is the system of group insurance, which has been adopted by many progressive business concerns. A reference is here sufficient as the subject of group policies has been treated in the Modern Business Text on "Insurance."

22. *Pensions.*—"A pension is an annual payment made to an individual secured either thru his cooperation or as a free gift." There are two ways in which to view pensions. They may be regarded as an effort to cooperate with employes, by nature improvident, in providing for their later years. Or the pension may be looked upon as a tacit acknowledgment that the salary has been inadequate to permit provision for old age. In the smaller office, as a rule, no pension provision is made. When the employe by reason of increasing age reaches a certain degree of inefficiency, he receives decreased pay with decreased duties until unable to work any longer. Then he may be granted a periodical donation, the continuity of which depends upon the favor of the grantor.

There is little excuse for avoiding responsibility in this respect. The whole trend of American business is to accept it as a charge on production. The possibility of having to provide for older employes is one that can be foreseen sufficiently far ahead to enable the most dilatory employer to make some provision for it. The probable cost can be determined with as much accuracy as the possible cost of life insurance. Some employers set aside three per cent of their annual pay-roll to meet this charge. They calculate an average wage for a certain period and multiply the total by the number of years' service, one per cent of the result being the average monthly basis. The figures vary from a minimum of $20 to a maximum of $100 per month.

The old type of employer declines to regard a pension as a right of the worker, and insists upon characterizing it as a "benefit." Probably the employer who provides pensions toward which the employes make no payment has a right to take this attitude, tho it is a short-sighted one. Systems under which the office employe pays part of the cost of providing pensions are just beginning to appear. A typical noncontributory pension system, carried entirely by the employer, is that of Swift and Company in Chicago. Its provisions are as follows:

> The employes do not contribute to the fund.
>
> Income from the $2,000,000 foundation fund is to be supplemented annually by Swift & Company until the fund is large enough to meet the necessary demands.
>
> Men in the employ of the company 25 years who have reached the age of 65 years shall be pensioned.
>
> Women in service 25 years who have reached the age of 50 may be pensioned.
>
> Women in the service 25 years who have reached the age of 55 shall be pensioned.
>
> Employes in service for 15 years and up to 25 years, who are permanently incapacitated for work, may be pensioned.

Pensions of those retired on account of age and length of service, or if incapacitated after a service of 25 years, but prior to the age of retirement, shall be one-half the average salary for the five years preceding the retirement.

Pensions of those retiring on account of incapacity after from 15 to 25 years of service, shall be computed on a basis of one and one-half per cent of the average salary for the five year period preceding retirement, for each year of continuous service.

No pension shall be less than $240 a year.

No pension shall be in excess of $5,000 a year.

The widow and children of a married employe shall receive one-half of the benefit to which an employe shall be entitled at the time of his death.

As a rule, pensions are not given until the workers have reached 60 or 65 years of age. Therefore, it is generally found that the number of pensioners is comparatively small—possibly not more than five in about one thousand employes. While most men advocating pension systems are enthusiastic in their praise, experience seems to show that they do not begin to affect the stability of employes until the latter are within a relatively short distance of the status of a pensioner. It is hard for the average person to look very far ahead.

23. *Thrift.*—Thru the Liberty Loan and the War Savings Stamps, the people of the United States have recently been given a thoro education in the principles of thrift. This movement has been backed by the good wishes and encouragement of employers. They have become the sales agents for the War Savings Stamps and have extended many facilities to their

employes which have enabled them to become purchasers of the Liberty bonds.

The predominating force behind all of these activities has, of course, been the desire for service which the war brought about, but it has reenforced the principles of thrift and saving. Employers have welcomed the chance to impress the importance of this upon the minds of their employes, as it supported the savings agencies which had already been established for the benefit of the employes. One of the forms in which the employers' disposition to feel that they have an obligation to their employes beyond mere payment of salaries finds its expression is in the attempt to promote saving habits, to prevent employes from making unwise expenditures and from falling into the hands of the loan sharks.

Many office workers are not especially interested in saving, and even if they were, the facilities for saving are not always at hand. Only by a campaign of education can thrift be effectively inculcated. The means of saving must be made convenient and the motives of the employer must be made to appear wholly disinterested.

In order to make the plan a success, an attempt is first made to awaken interest in it by means of pamphlets, circulars or lectures. Then mechanism, usually of the simplest kind, is provided for collecting the contributions, which should be limited to a certain percentage of the weekly pay. The Eastman Kodak Company, for example, publishes a circular encouraging men to save. With it is a slip entitled "Authority to Make Deposits." This authorizes the cashier to subtract the agreed amount from the envelop. In other companies a bank teller calls at the office on pay days, cashes checks and receives deposits.

In beginning a savings fund of this sort, it is desirable to establish a maximum and a minimum amount of contributions. A card index, alphabetically arranged, is used. Upon this card is indicated the amount contributed, the amount withdrawn and the balance. The success of any savings plan depends largely upon the manner of its presentation. It will fail if employes believe that some one is trying to interfere with their private life. For one thing, employes are somewhat wary in admitting that they can save anything from their salaries, fearing that such admission may be prejudicial to any argument for a salary increase.

In starting a savings fund, it is good policy for the company, after assuring itself of the soundness of the scheme, to hand over the management to the employes and grant them facilities for making it a success. This is enough to assure most workers that there are no ulterior motives on the part of the company.

In some companies employes are given the legal rate of interest on their deposits. Besides that, they are often encouraged to purchase stock at a reduced price. Thus there gradually grows up within the concern a body of stockholders whose interest in its success is, by the fact of stockholdership, firmly established. In such cases, provision is usually made for the return of the stock to the treasury, in case employes leave. The United States Steel Corporation has consistently encouraged its employes to purchase stock, sold a few dollars below the market price. Over $65,000,000 worth of stock has been so purchased.

One large office conducts a savings club, allowing employes to purchase at par seven per cent preferred stock. Stock payments are due on the fifteenth of each month in multiples of $2.50, not exceeding $10 a month. Interest is paid on all partial payments. As soon as a member of the club has paid in $100, a stock certificate is issued to him.

In conjunction with the savings plan, it is well to recognize that employes may need financial assistance at some time or other. Therefore, a loan fund is established for which the same machinery can be used as that which operates in the case of the savings organization. As a rule, depositors in the savings fund may borrow at least to the extent of their savings. Frequently loans are made to deserving members of the office force who have not yet become savings depositors. For loans a small rate of interest is charged, usually six per cent, with an initial charge of 10 cents for each loan. Such loans may run for three months and be renewable once for a like period. The authority to arrange for small loans is vested in the manager of the savings fund, but loans above a week's pay should be approved by a special committee.

In special cases, particularly where very large wages are paid, special supervision can be exercised not only over the thrift of the recipients, but also over their entire personal expenditures. Such paternalism is exercised by Henry Ford at Detroit. Approximately half of the standard wage paid must be accounted for by those to whom it is paid. It must be put in the savings bank, invested in a home, spent upon unforeseen contingencies, such as doctors' or dentists' bills, etc.

REVIEW

Classify the many divisions of welfare work among employes.

What factors must be considered if the physical condition of employes, while at work, is to be kept at the highest point?

Is the self-conduct of the employe, outside of the office, a matter which should be of concern to the employer?

To what extent may employers provide opportunities for the benefit of employes, and yet avoid a paternalistic attitude?

Describe mutual benefit associations for employes' group insurance and pension systems.

How may thrift be encouraged?

CHAPTER XV

OFFICE ORGANIZATION

1. *The parts and the whole.*—Up to this point the consideration of office management has been wholly analytical. The treatment has concerned special questions touching personal facilities and operations of offices; it has concerned itself with the parts rather than the whole.

The remainder of the Text will consider the office as a unit, and take up the more general problems of the whole. This consideration falls into two parts, structure and operation. Since the office is a place where things are to be done, the administration of the office as a whole outweighs in importance the manner of its organization. Since organization precedes operation it may properly first engage our attention.

2. *The meaning of organization.*—Just what are the elements which enter into the office organization? The answer is made clear in considering the definition of an organization which declares it to be an artificial organism. An organism is a living thing; its parts so differentiated and coordinated that together they perform the functions of life. The human body, for example, is such an organism in which nature has differentiated the members, so that each of them is obvi-

ously best fitted for doing only one thing. No one would be tempted to walk on his hands or handle tools with his feet. But the members of an office force are a set of human beings, each very much like the other. To be sure, age, sex, ability or previous training may have differentiated them so as to mark some for bookkeepers, some for stenographers, some for office boys, and so forth; but much of the process of differentiation has to be carried on in the office itself. Particularly is this true of those in higher, supervisory positions.

In creating an organization, we seek to construct an artificial organism in which we differentiate tasks and assign members to perform those tasks. In a good organization, each individual has assigned to him specific work and is instructed as to the time, the order and the manner in which he shall do it. In so far as the business of the organization is concerned, the member surrenders control over his actions. That control is exercised by the superior officers of the organization who determine its policies, standards and methods. They are the brain which the members must obey.

From this it might appear that membership in an organization involved loss of individuality, that it meant resignation to becoming a mere cog in a great machine. The lowliest member of a great organization can hope to become its head, since in the organization the differentiation of tasks is not a permanent one. There is a constant shifting, a constant promotion of those who show ability. Ability is shown in two ways. In the first place, the thinking can never be done so completely for the members of an organization as the brain does it for the members of an organism. The organization members must be left some measure of decision and initiative. In the second place, the very act of submitting to the policies, rules and methods of the organization is evidence of loyalty as well as evidence of fitness for higher positions.

3. *Administration.*—It is the business of the administrator to devise means by which orders conveying the policies, rules and methods of the concern are transmitted to the members, and by which control is exercised over the manner in which these orders are carried out.

It should not be assumed that the problem of administration is a mechanical one, like the mere sending out of commands over the motor nerves from the brain to members of the body. The members of an organization have intelligence of their own, and to deliver up the exercise of that intelligence is an unnatural, artificial process. Loyalty of employes cannot be obtained by the operation of any set of rules or any methods of control, necessary as these are. It can be obtained only by the voluntary action of free individuals, and an important duty of the administrator is to elicit this voluntary submission, this unreserved loyalty.

In a study of this subject it is not always possible to keep organization and administration absolutely separate; just as it is difficult to describe the anatomy of the body without some regard to the functions of the parts, or to describe those functions without considering the anatomy thru which they operate.

4. *The development of organization.*—Organization is designed to get the maximum of performance out of a set of human beings associated together for a common end. Therefore, it is natural that organization should first have been developed in the military field. Those nations that did not develop efficient military organization did not survive.

Every one knows that the main outlines of military organization are: the careful limitation of authority, the strictness of discipline, the exactness of orders, the perfection of training of every officer and subordinate. In the course of time it developed that it was advisable to have separate sets of officers engaged in planning and in executing military operations. There came to be a new group of men designated as staff officers, as distinct from the line officers who led the men. For ability to lead and inspire men in action is largely a matter of personal character and magnetism, while the quality required in the planner is an analytical mind, often cold and lacking in contagious enthusiasm. Staff officers have charge of things, of operations, while line officers have charge of men.

Military science is the source of effective business organization. For many reasons, office organization is a new thing, long preceded by a development of scientific organization in railroading and manufacturing. The reason for this is that while long ago the railroad and the factory developed into larger units and required organizing in order to become efficient, the large office is a matter of only recent growth.

5. *Organization record and chart.*—The best manner of crystallizing and visualizing the organization of an enterprise or department is by means of an organization record and an organization chart. The purpose of the organization record was well defined by H. A. Halligan, vice-president of the Western Electric Company, in a paper read before the Taylor Society at Washington in 1917:

> We adopted the general theory that the responsibility of the authority of each executive must be clearly established. For this reason, we have our organization record, which is a statement of the duties, scope and functions of each general department. It includes charts for each department, showing the names of those in charge and their lines of authority and responsibility. In certain cases the descriptions of duties are supplementary, in some cases they explain advisory relations and relations not involving direct authority and responsibility. Similar records exist within the departments, so that each individual in the employ may be given his place and may know what his relations should be to those about him.

A study of the organization record and the organization chart is a fruitful source of suggestions for changes and improvement in the organization.

It is not possible, of course, to establish a standard form of organization applicable to all business enterprises. No two officers have precisely the same set of functions to perform. All that can be done is to describe in some detail a typical organization and point out the main principles that must be observed in any successful organization form.

6. *The office manager.*—In larger business concerns the office manager is already a separate personage. In many medium-sized and smaller enterprises his duties are likely to be divided up among a number of department heads, or they may be among the tasks assigned to an officer who also is engaged in some branch of the concern's activities. The office manager, besides being familiar with the working of the different divisions of the business, must be familiar with the subject of organization and management and in touch with all modern office practices and devices. He must be a good judge of men and women, able to command the respect of his subordinates. He should know in detail each operation within the office, for upon this detailed knowledge depends the possibility of making those small and frequent changes in office organization and methods in which improvement lies. The office manager must have one qualification not always essential in other executive positions, namely, a capacity for infinite detail.

7. *Keeping free from detail.*—Yet the office executive must not permit himself to be swamped with the details of office work. He must delegate authority and responsibility to subordinates, requiring of them results and judging the quality of those results by means of supervision, records and reports.

In Ray Morris' "Railroad Administration" is an excerpt from the private documents of Charles E. Perkins, for many years president of the Chicago, Burlington and Quincy Railroad, in which the necessity for an executive to keep away from unnecessary detail is ably emphasized. Mr. Perkins' message has a meaning not only for railroad presidents but for any executive.

> Never do, or undertake to do, yourself, what can be done sufficiently well by a subordinate. There are things enough which cannot be done sufficiently well by subordinates to occupy your time.
>
> Trust those under you, and let each one work out his problem, for the most part, himself; otherwise your subordinates will not learn to depend upon themselves, but upon you.
>
> Keep as much as possible out of petty, everyday details. Let needed reports be made to your adjutants, if you choose, but do not take it upon yourself to see them all. So long as the machine works smoothly, you should be a looker-on, except as to those particular parts of it which, because others cannot do them well enough, you yourself may undertake to attend to. It is a mistake to assume that others are less able, or less attentive, than we are.
>
> Never allow the gossip of the camp to reach you. It is inevitable, but the less you hear of it the better fitted you are to conduct the matters of importance.
>
> Require the minutest accuracy in money matters; to which end the auditor of accounts should call attention to every departure, no matter how small, or seemingly unimportant, from well established regulations and usages.
>
> Always regard the feelings and prerogatives of those above and below you. Do to others as you would wish to be done by under other circumstances.

8. *Distributing subordinate tasks.*—In the distribution to subordinates of tasks of constantly decreas-

ing importance, special care must be taken neither to underburden nor overburden them with work or responsibility. The former will result in a loss in economy; the second, a loss in efficiency. Within the sphere of duty and responsibility marked off for each department, there must be a liberal area of discretion and opportunity for the exercise of initiative which is a distinct asset to the organization.

Strange as it may seem, one of the hardest problems to be solved in building an organization is to get its members to assume responsibility. Most people seem content to work merely for the wages they can get, not for the higher interests of the company they serve. Many who are willing to give their time and such part of their efforts as is necessary to the discharge of their duties in a reasonably satisfactory manner, regard their business connection as a necessary evil forced upon them by the fact that they must have the wherewithal for the necessaries of life. Office executives are always on the look-out for employes who will assume and discharge responsibility, and in this field, as elsewhere, there is promotion for those who will "make their employer's interests their own."

No person burdened with authority should be indispensable to the organization. For every such person there should be an understudy, capable of doing the regular official's work and available when his principal is, for any reason, absent. It sometimes turns out that the understudy can do the work better than his principal. The existence of such understudies is not without a certain wholesome effect upon those whom they are trained to supplant.

9. *Centralized office organization.*—The main difference between centralized and departmental office organization is found in the supervision over and control of clerical employes. In centralized organization, we find, for example, the office department with all its branches serving simultaneously the production division, the financial division and the selling division. None of these divisions have any clerks, stenographers, office boys, mail handlers or filing department of their own. The demands of each division for all classes of office help are thus pooled in the office department.

10. *Departmentalized office organization.*—In a departmentalized organization of the office force of a similar enterprise the production division has its own chief telephone operator, its own stenographers, its own office boys, its own printing establishment, its own recording clerks, filing department and mail handlers. It is not necessary to repeat this arrangement for the rest of the departmentally organized office force. The reader must imagine the financial division and the selling division fitted out with a similar office organization.

11. *Advantages of centralization.*—The advantages of the centralized office organization are obvious. The latter prevents unnecessary duplication of work, equipment and appliances. A considerable saving in the number of office employes is made possi-

ble by their concentration in one office. If each department has its own office force, this force must be large enough to carry the "peak load" of the department's business, which may come during two or three days of the month. The remaining time may not be wholly occupied. On the other hand, if the office employes of all divisions can be gathered together in one department, the periods of "peak loads" can be used to offset and supplement each other, and clerks can be shifted to points where the pressure of work demands them. Finally, if supervision and inspection can be thus centralized, they can be made more efficient as well as economical.

12. *Limitations of centralization.*—While in many respects the centralized office department is almost ideal, it has certain practical limitations, which manifest themselves as the enterprise grows in size and as the numbers of the office force increase. When several scores of stenographers or dictaphone operators are directed by a single office manager, and when each of the several large divisions must look to this common source of supply, it may at times take a long time for an assistant at the farther end of the selling division to get a stenographer, have his dictation taken, typed and returned to him. In other words, the bigger the force the greater the chance for delay. As the enterprise grows larger, there is danger that parts of it will grow away from the centralized clerical force. It is then that the office becomes departmentalized.

To illustrate: Most of the correspondence sent out by a large eastern company is typed by operators of the dictating machines. The dictated cylinders are collected by office boys on their regular rounds thru the offices and are assigned in regular order to the operators. This procedure, however, is much too slow for certain types of the firm's business. For example, executives want to dictate their mail, have it typed for them rapidly, sign it, and be done with it. Moreover, a good part of their correspondence is confidential, having to do with the firm's policies, financial affairs, etc., and should not go thru the general office. Therefore these executives have private secretaries, who attend to their correspondence and keep their files, in addition to doing the other work usually performed by a private secretary, such as answering the telephone, meeting visitors and making engagements.

In another respect, the office force of the corporation is decentralized. The selling division, occupying a floor of its own, has an extensive daily correspondence with salesmen on the road, and with branch managers. It has its own stenographic force and keeps its own files. There is no good reason why these files should be kept in the general file room, since no one corresponds with the salesmen except the sales manager and his assistant. Formerly these files were kept in the general filing room. Whenever they were asked for, however, the request had to wait its turn. Since the files were used by no other branch of the business, it was found that time would be saved by removing them to the sales floor. This was therefore done.

The same company sends to each salesman a daily letter containing inspirational matter as well as the response to whatever letters or orders have come in. It is necessary that those letters should be signed and sent off in each evening's mail. If the letters were dictated upon cylinders and made to take their turn in the dictaphone department of the central office, they might not be finished that day. So the selling division has its own stenographic force. That division has another reason for wanting a separate stenographic force. It insists that the personal touch, the "punch" which letters to salesmen must have, cannot be imparted by the dictator to an inanimate machine so well as they can to a living stenographer. That may be merely a matter of imagination; nevertheless, since this is the feeling of the selling division, they need stenographers and not dictaphones.

The ideals of organization must sometimes be sacrificed in compromise with the peculiarities of human nature. In no other field is this more true than in such organization as has to do with the temperamental selling division.

A peculiar compromise of this sort has been made by the Loose-Wiles Biscuit Company of Boston, in which each department has a stenographic force, centralized as to location. The stenographers sit in a central office and are under the control of an office manager, but their work is assigned to them by the department heads, to whom they are responsible for the carrying out of their work assignments. The probable explanation of this arrangement is that the sales division, rarely strong as to detail work, is glad to be rid of the supervision of its office employes.

13. *Advantages of departmentalization.*—As the office force increases, certain advantages are claimed for the departmentalization of office activities. Thus, it is said that loyalty and interest in the work are increased on the part of the stenographic and filing employes thus assigned. For example, in the Curtis Publishing Company and the National Cloak and Suit Company, the correspondence and filing divisions are highly centralized, a unit of each of them being provided for handling the customers in a small given territory. The correspondents, stenographers and filing clerks thus come to have a personal knowledge of and interest in a specific section of the business. Their efficiency in handling these customers is greater than would be the case if their efforts were distributed over a wider field.

There is also opportunity for instituting competition among such unit office groups. There is an obvious saving of time in getting out work as compared with the method of waiting in turn for service in the general office.

There is a fostering of *esprit de corps* in the members of the departmentized office force. It is perhaps easier to be enthusiastic about something that is near to you, like your department or your department group, than about something that is far away, such as the business enterprise as a whole.

As a general rule it can be stated that in the early stages of a concern's growth, its office force is generally centralized. In the process of growth, however, two of the office functions—correspondence and filing—tend to become departmentalized. At what stage of development departmentization of these functions should set in, is a matter to be separately determined in each case. Perhaps enough has been said to indicate the general principles that should govern.

14. *Never complete decentralization.*—It should not be assumed that, with the growth of the corporation, all its office functions necessarily become decentralized. For the purposes of the present work, a detailed study has been made of office practices in the following well-known concerns, among others: The National Cloak and Suit Company, Postal Life Insurance Company, United States Rubber Company, Loose-Wiles Biscuit Company, Curtis Publishing Company, Equitable Life Insurance Company, Funk and Wagnalls. It was found that in all, except the insurance companies, the stenographic and filing departments were decentralized, whereas the other office functions were centralized. The central office in all cases handled mail, printing, statistical work and office service for the whole concern.

Frederick Taylor, the efficiency expert, once said:

> The mechanism of management must not be mistaken for its essence or underlying philosophy. Precisely the same

mechanism will in one case produce disastrous results and in another the most beneficent. The same mechanism which will produce the finest results when made to serve the underlying principles of scientific management, will lead to failure and disaster if accompanied by the wrong spirit in those who are using it.

15. *The service ideal.*—It is a condition of a successful organization that it be saturated with the policies and ideals of the enterprise. Every business has an ideal. It should be an instrument of service. Unless it be a swindling concern, it supplies the public with something that is cheaper or better than can be bought elsewhere. The service ideal of the concern should be put into words and constantly held up before the minds of officers and employes.

The broad principles of organization have been stated by Surgeon Bell, of the United States Navy, to be as follows:

> *First.*—A single mind in control, from which the plan of action and the directing authority must emanate.
>
> *Second.*—Subdivision of delegated authority in conformity with the branches of the organization.
>
> *Third.*—The recognition of areas of discretion corresponding to subdivisions of authority, but within the range of loyalty to the end in view (mission).
>
> *Fourth.*—The determination of a mission and the promulgation of a general scheme or plan for attainment.
>
> *Fifth.*—The exercise of a system of inspection.

So much for the mechanism of office organization. But the efficiency of this, as of any other mechanism, depends upon the intelligence and skill with which it is handled. The exercise of intelligence and skill in handling business organization is what is involved in business administration or management.

REVIEW

Distinguish between office organization and administration. Why should the first have precedence over the second in the treatment of the subject?

How may an office organization chart serve as a source for suggestions of important changes and improvements?

What type of executive will best serve as an office manager?

Do you approve the theory that a man should not do what his subordinate may do sufficiently well?

What is the general history of an office with regard to the centralization or decentralization of work?

State the principles which, if obeyed, would permit the ideal office organization.

CHAPTER XVI

PLANNING

1. *Need of planning.*—The modern tendency of industry towards concentration has necessitated an intensive study of organization and management problems. There have been important results. The growing size of the office and a more perfect understanding of the industry which it serves have brought about improved methods in the office. Today the active office manager is inquiring what there is for him in scientific management, and he is finding that some of its principles can be applied with benefit to his own problems. The time-honored rule-of-thumb methods of planning the office work are gradually being supplanted by improved methods developed in factory experience.

It is possible, of course, to plan the office work without having recourse to a specific planning department. The work may be planned by the office executive, yet the planning department is a recognition of the fact that the function of the office force is to do the work that is planned and not to plan the work that is to be done. Unless there is some definite machinery provided to handle changing conditions and to plan for necessary adjustments, disorganization is likely to result. There are always problems to be solved with regard to rush work, special work or threatened slack periods. The object of planning is to foresee and provide for such contingencies.

Planning, as applied to office work, means determining the best equipment, method and man for doing a certain work in the best way by means of standard result-producing methods. In traditional management of enterprises each man is responsible only to the man higher up, and he in turn to the man still higher up. In functional management, jobs are sharply separated into planning and performing.

In theory, all office work is planned. In practice, it is as well planned as can be expected from those who already have their hands full turning out work or supervising it. In the average office, planning is merely incidental, despite the fact that the modern advocate of scientific management insists that a much larger emphasis should be laid upon planning if we would have an efficient office.

2. *Applicability of planning.*—One of the drawbacks in the ordinary management is that the worker is expected not only to work, for which he is paid, but also to think, for which he is not paid and at which he is not likely to be proficient. In scientific management the thinking and planning are done by men especially fitted by training and experience, while the specialized methods of work that result from their efforts are left to be carried out by the workers.

Assuming the receipt of 300,000 communications in a year, it means just that many letters opened, unfolded, read, considered, acted upon and answered. If in this process but one unnecessary step is taken, the aggregate waste of time is considerable. By planning, we seek to eliminate every unnecessary step, every unnecessary motion, and all uncertainty. The work of scheduling and routing proceeds on the basis of ascertained facts.

3. *Meaning of terms.*—Routing is determining the "when," "who" and "where." Scheduling is determining the rate, with respect to time and quantity, as to what work shall have precedence. In fact, scheduling is the receiving and sending out of the work at the proper time on the basis of a predetermined scheme. All these things are essential factors in planning. In some offices, for example, the work of every one begins at a certain fixed hour. At that hour the office boy proceeds to open the mail. When this operation is completed, distribution commences. By the time the mail reaches the person for whom it is intended, it is well along in the morning. In a properly planned office, on the other hand, the mail opener arrives early enough to have the mail opened and distributed before the arrival of the correspondents. The purpose of planning is to obviate such delays both at the start and at any other time during the day.

4. *Tracing the course of work.*—In routing, we have to consider the line taken by mail from the moment received until the matter is finally disposed of. The doubling back of letters is a frequent cause of

lost time and must be avoided. The situation can be visualized by making a plan of the office and tracing the course of an order from desk to desk by means of pins and strings. Except in those unusual institutions where the best methods are intuitively adopted, it will usually be found that there is much retracing of steps. This can be easily remedied by proper routing. When the investigation has been applied to each class of mail, we have determined the proper arrangement of desks for the most efficient routing of the correspondence. It is often found, however, that, whereas the progress of a paper thru the office might take only an hour, the "running time" may average several days. The function of routing, as part of the planning, is to facilitate the flow of work by straightening the line of progress.

For example, examination may show that each unit of a hundred typical orders needs a dozen operations for the completion of each individual order. The first operation takes one minute, the second, two, the last, let us say, twelve minutes. Obviously, there must be twelve times as many workers doing the last operation as there are doing the first, in order to finish it in the same length of time. Unless the facts are known as to the relative length of time required by each section of the work, the best method cannot easily be determined. It would be inexact to say that all the problems of routing are as easily solved as that in the example given; yet this latter illustrates an important principle. By such means it is possible to determine the shortest and most economical path by which the work can travel, the time it will take, the order in which it can be done and the record of its progress.

5. *Scheduling.*—By means of scheduling we determine the rate at which work should be started and completed, allowing for all necessary delays. When we know the route that work should take after starting on its journey, it is not difficult to determine when it may reasonably be finished. If the correct schedule is set, proper steps must be taken to see that it is maintained. This may be done by means of time stamps, showing when a given piece of work was received in each department, or by each clerk handling the work. The effect of this automatic check on "running time" is very marked.

The schedule is the basis for action. By scheduling, we see to it that each piece of work, instead of being passed along in a casual fashion, is started and completed within a given time.

6. *How to secure effective plans.*—The establishment of a planning department in an office is not such a radical departure as one might suspect. In larger offices, it merely means the concentration of investigative duties which formerly were dispersed among executives who already were overburdened with the actual work of performance. In small offices a special department of this kind is not justified, but a planning committee, with time set apart for this particular work, is always possible. This committee

can perform the work which in larger offices is undertaken by a planning department.

In large organizations, a planning department is an absolute necessity. Its functions, moreover, embrace other activities more or less closely allied to planning. In many cases, large organizations have secured the services of highly qualified men and established them at the head of research departments carrying out planning work. The basic work to be done is to investigate, report and make recommendations regarding every point affecting the business activities of the office, whether regarding what is being done elsewhere in competitive fields, or what can be done to improve the existing practice.

The duty of such a department is, as a rule, advisory. Advice is rendered on the basis of accumulated experience and practice and information secured from many sources not otherwise at the disposal of the division in question. If a planning department works in proper cooperation with the other divisions of the office, its recommendations have much more force than that of mere recommendations.

The planning department introduces new methods, advises on equipment, designs and prepares newer and more efficient forms and records, operates suggestion systems, often selects, trains and develops employes. It studies, analyzes and compares principles, methods and results, prepares standards and checks performance against those standards.

The head of such a planning department must have a well developed gift of analysis and a keen faculty of observation. He must allow no established tradition to deter him from applying his abilities to determine, with an open mind, the best ways to do a specific kind of work. His first duty is to prepare the ground for establishing standards by patient investigation of all the factors involved. He should select for first investigation that type of work which seems to offer the best return in lessening effort, reducing cost or improving working conditions. He should first select and study such functions as promise permanency, and the type of work which is done by the largest number of people, the greatest number of times. All repetitive operations must be classified and grouped by detailed analysis of the essential movements. The performance of such duties, in any highly developed scheme, demands the assistance of many officials in the enterprise.

7. *Motion study.*—Motion study is now being applied to the operations in the office. The motion study man studies work in its minutest detail by analyzing each action and recording the time taken in determining the most suitable movements. He standardizes methods by analysis and records. For example, he determines the best way of opening mail, folding circulars, affixing stamps. His work has been described as "the science of eliminating waste movement; the identification and removal of unnecessary, ill-directed and ineffectual motions."

Few officers can hope to find on their staffs men possessing the kind of knowledge demanded for motion-study. Such an individual must generally be brought in from outside as an expert. An expert motion-study man is able to analyze operations, determine and eliminate unnecessary motion, establish the best method and secure its adoption by the force.

He must find out how much work can be performed each day without fatigue, and establish rest periods to guard against fatigue. He must see to it that increased reward is given for increased production. It is true that in the office many objections have been raised against the use of the stop watch—a necessary part of the equipment for motion study. A little diplomacy is sometimes required in its introduction, but no apology is needed when its purpose is fully explained to the office force. It is necessary to demonstrate that it is a means which progressive employers use to secure the best work so that they can give a higher reward for the effort made. The majority of those whose work has been improved by means of this instrument are fully reconciled to its use.

The finest stop watches are made to record hundredths or thousandths of a second, and are used in connection with a sheet recording the time taken. A suitable piece of work is studied and resolved into its simplest motions. The time of each motion is then recorded. All delays, useless motions and faulty conditions are separated from those that are unavoidable.

Fatigue also can be determined by observation of decreased productivity during the progress of the work. Frequent tests of the kind are made on different subjects and under varying conditions at different times of the day, and all abnormal or uncertain results are eliminated.

From all these data an analysis separates the necessary from the unnecessary elements, and a standard method of doing the work is thus established upon a sound and unassailable basis.

8. *Relation of planning to equipment.*—Some space has already been devoted to a consideration of office equipment in general. This also has an intimate relation to planning. For example, in one office it was the duty of certain girls to spend several hours a day placing cards in a vertical file covering an area of about 50 square feet. In these files, only a small percentage of the drawers were at a convenient height and it was therefore necessary to assume a stooping or kneeling position in order to file a large percentage of the work. The mere substitution of a "tub" desk had important results. Instead of requiring two girls to manipulate the cards, the work could be comfortably done by one, and she was able to do the work sitting. Not only was the amount of equipment made less, but the area of surface occupied by the cards was reduced three-fourths. The time required was cut in half. It is an interesting instance of what can be done by planning in relation to the use of equipment.

Planning may be effectively applied to such ordinary duties as opening the mail. It determines the saving affected by the use of machines as compared with hand work. Even in doing the work by hand—supposing that a machine is not yet economical—important economies may be effected. The office manager who has not yet studied this apparently insignificant operation may profitably do so.

In sealing envelops, the untrained office boy licks the gum and pounds each envelop a dozen times to seal it. A trained office boy uses a sponge, wets a dozen flaps at a time, stacks them loosely and compresses them with a weight, leaving time to do the rest. Where thousands of envelops have to be sealed every day, failure to do it in the most expeditious manner means a loss of time which will amount up to a considerable sum in the course of a year. In concerns where large numbers of letters are sent out, the work of dampening the gum and closing the envelops is, of course, done by machine.

The typewriter is an office appliance which has been highly standardized, yet there is much difference of opinion as to the effectiveness of certain typewriter attachments. Having all machines of the same make and style of course is desirable. For certain kinds of tabulating work, however, there is decided advantage of one attachment over another. These are matters which should be ascertained and decided by the planning department. The typewriting machine is not yet perfect. Glistening keys and shining parts are still the rule, tho doubtless the touch system of machine writing, which ought to be in universal use, has obviated much of the discomfort to the eyes caused by the light reflected from these parts.

The planning department sees to it that the oiling and cleaning of the machines is done by men who understand their work and not by the inexperienced typist who does not know how it should be done. It is instructive to note, for example, how quickly a typewriter ribbon can be inserted when the proper method is known, compared with the time taken by the average typist. In all larger offices such duties are usually relegated to a man who does the work while the machines are idle.

9. *Planning board.*—One of the most effective uses of planning is to visualize the ascertained facts regarding the progress of the work. For this purpose a planning board is used. This consists of a number of consecutive spaces, one for each section of a given job. In each space a pin remains sticking until that section of the job has been done. As it is completed the pin is removed. When all the sections have been done, the board is clear.

In a large office where many pieces of printed matter are put thru during the year, good use is made of this device to enable the manager to determine the progress of any particular job. The board is so placed that he can conveniently answer over the telephone questions relating to the progress of the work. By this means he gives the impression that he has all the details of the job at his fingers' ends. The operations in that office are divided into ten main sections. As each page of matter is completed, the date is marked in the appropriate section and the pin is removed. In the same space has already been marked the date upon which it was expected that the operation would be completed, and it is therefore possible to determine what work is behind schedule, and take steps to hurry it.

Another type of planning board is that on which the hours of the day are placed at the top, divided into four quarter-hour periods. Each clerk has a certain amount of work to do for the day, and by means of pins or other indicators, the actual performance, and the amount remaining to be done, are duly noted. By this means a visible control can be exercised and it can be known which results justify the extra expense involved in keeping the board marked up to date.

10. *Standards.*—Before standardization can be effected, the operations involved must be carefully studied. Each operation has to be considered by itself as well as in its relation to the other factors. Routing and scheduling have to be determined, and times for the whole process must be compared repeatedly. Thus standards may be evolved with reasonable certainty as to their accuracy. Standards should be the basis of all routine work, and from such standards no deviation should be allowed.

Having established standards, it is the duty of the head of the planning department to ascertain how well they are maintained. This he does by means of records, checking the actual with the expected performance. Thus the capacity of each clerk becomes known, and an accurate estimate is made of his progress or retrogression. Moreover, a satisfactory basis for ascertaining cost is established, because the time required for each piece of work, as well as the number of pieces, is known. For the sake of new workers, it is well to see that the standards are as fair and comprehensive as they can possibly be made.

11. *Book of standard practice.*—There is obviously little use of establishing standards without some effective means of seeing that they are put into operation. Probably the best way to accomplish this is to make employes acquainted with them thru what is known as the office manual. This has now been recognized, under one name or another, as a necessary feature in office management. It is, in fact, "the book of standard practice."

As a time saver, the office manual is decidedly valuable. It provides information that could be conveyed only by means of prolonged conversations in offices where it is not used. It is the mouthpiece of the manager and represents the best thought of those responsible for getting the work done. It has the distinct merit over oral instructions in that it is invariable for all.

In the correspondence department, a manual describes what is expected in the composition of letters. It gives general information concerning correspondents' duties. It tells how a good business letter should be constructed and what expressions should be avoided. It gives specific instructions as to the functions and the methods of preparing follow-up letters, and contains other useful information.

The stenographers' manual outlines general rules as to the office and the care of machines. It gives directions for keeping a record of work and contains hints for the economical use of stationery. It tells how to estimate the length of a letter, arrange paragraphs and margins. It also indicates the most suitable manner of closing letters.

The phonograph operator is given information about the essential points of a dictating machine, is told how the instruction slip should be used, and how to operate the dictating machine most efficiently. Suggestions are made as to capitalization, syllabification, spelling and punctuation, so that a uniform style for the entire office is secured.

12. *Office rules.*—Rules are rarely obeyed consistently unless they are put in writing and thus made available for all. If they are known and observed they constitute an important aid to getting work done. It is absolutely necessary, for example, that clerks should know what time they are to be in the office, how much time is to be taken for lunch and at what hour they may leave. If a time clock is used, employes are given specific instructions as to how to use it and are informed as to the penalty for neglect.

Their attention is called to the disorganizing effect of tardiness and to the penalty for being late. They are instructed as to the entrances and exits which they are to use and informed as to the length of vacations, when, and under what conditions they are granted. Directions are given as to behavior and discipline and the relations between the employes in each department, private or business telephone calls, etc. In some cases the office rules include information as to suggestion systems and the conditions under which they are operated.

As will be seen, the office manual and the office rule book are the crystallization of a great deal of hard work done by the planning department.

13. *Complaint manuals.*—A routine method of dealing with customers' complaints on the basis of actual experience, is valuable. The complaint manual is compiled from an analysis of the cases that most commonly arise in the course of business, such as shortages, unsatisfactory service, etc. For all such cases form paragraphs are provided and the adjuster is instructed as to when material may be exchanged or duplicated, and when credits or refunds are permissible.

REVIEW

Indicate what is meant by "planning" office work.

What is meant by "routing" the work properly?

Plan the time schedule of a letter from the dictator thru the hands of the typist, proof-reader, etc., until it returns for the writer's signature.

What is the only fair way of establishing standards for office work?

CHAPTER XVII

OFFICE CONTROL

1. *Need of control.*—Economists tell us that the strongest motive in man is the so-called economic motive. It is the motive which impels men to get the maximum of return from the minimum of effort. In this principle lies the need for adequate control.

Employes who could not be induced to steal money are often grave offenders in stealing time. Unless there are proper methods of control, production will be seriously curtailed thru actual soldiering, day-dreaming under the semblance of work, extensive morning greetings, visiting among employes during working hours, personal and telephone conversations, handling personal correspondence, tardiness, unjustified absences, taking office time for putting on and taking off wraps, and clock watching.

The manager must get from his subordinates the equivalent of a day's pay, not only to increase his profits but even to stay in business. Less than this contribution from each employe means that the cost per unit of production is increased, and the firm whose costs are thus increased is in danger of being eliminated from the field of competition. Even if the situation does not result as disastrously as this, inadequate control is a serious matter because it weakens the *esprit de corps* and this tends to create a dissatisfied force.

The methods of stimulation described in Chapter IX will only prove successful where the fundamental principles of control are already in operation. Bonus systems, rewards, contests, etc., are designed to induce the employes to render the maximum output after the minimum has been secured. Adequate control is, therefore, an essential to successful management.

2. *Principles of effective control.*—There are many methods of securing effective control but as all of these methods are based upon a few definite principles, one must know these principles before determining upon what methods he is to use in his particular organization.

In the first place it is necessary that employes should know that the person who exercises control has the authority to do so. Furthermore they should clearly understand what is expected of them in the application of this control. Any lack of clearness in the distribution of responsibility is sure to weaken control.

Adequate supervision is also fundamental to effective control. Unless employes know that they are under someone's jurisdiction and unless this jurisdiction is an active one, there is little incentive to give the equivalent of a day's pay.

Effective control involves frequent inspection of the work being done. It is only by inspection that carelessness and the natural tendency to fall away from high standards can be overcome.

Finally, effective control can be carried on only when the manager really knows what is going on, and does not guess at it. In a small office this does not present a serious problem, but in a large office somewhat elaborate methods must be devised for giving the management a knowledge of all facts. Employes are quick to realize when those in charge are not familiar with the facts in connection with every activity.

3. *Organization chart.*—The organization chart offers a simple method of defining the responsibility of every single employe. It eliminates the chance that the employe will doubt the authority of the person exercising control. Furthermore, it enables those in charge to clear up any misunderstanding in their own mind in the exercise of control. The scope and purpose of organization charts have already been discussed in Volume 4 on "Plant Management."

The preparation of an organization chart is sometimes a difficult matter because of the fact that there is a good deal of interlocking of responsibility. But where this difficulty exists it is merely an indication of the need for studying and remedying the conditions that have resulted in this lack of definiteness in the distribution of responsibility.

In an organization where responsibility is definite the preparation of an organization chart is a simple matter. The publishing of the chart is just as valuable, however, because it removes the chance for any possible misunderstanding.

4. *Standard instructions.*—Trouble often arises because employes frequently misunderstand what they are expected to do. It is well to realize right at the outset that while a point may be entirely clear in the minds of those who are exercising control it may be anything but clear in the minds of those who are being controlled. Since office control is exercised in order to ascertain that employes are carrying out instructions it is essential that any opportunity for misunderstanding be eliminated. Before being subject to control employes should have definite instructions and it should be ascertained that these instructions are understood. It is with this idea in mind that office routine is embodied in manuals and that modern management calls for the training of new employes using the office manual as a basis.

All changes in routine and all new instructions should be in writing, and it is well to have a formal acknowledgment of these instructions in order to impress upon employes the responsibilities for them. An employe will rarely acknowledge on paper his understanding of instructions unless he actually does understand them. Furthermore, the insistence that all instructions shall be in writing reduces the chance for a lack of clearness in giving instructions. Frequently when instructions are given orally, too much is taken for granted, and when errors result it is human nature for the employe to resort to that time worn answer, "I understood you to say," etc.

5. *Centralized control.*—Supervision obviously can be exercised more successfully if the employe is responsible to one person. Just as soon as an employe is subject to orders from more than one person, misunderstandings and dissatisfaction are sure to result. It is well to keep in mind the fact that: "No man can serve two masters."

6. *Established policies.*—The establishment of definite policies leads to successful supervision. An organization that has not crystallized its managerial policies will have serious difficulty in controlling employes. For instance, absolute fairness in the handling of employes is a fundamental policy of good management. If certain employes are granted favors that other employes in the same class are not granted there is sure to spring up a tendency on the part of these latter employes to work against the organization. Under these conditions effective control is made difficult if not impossible.

Again if there is no definite policy of wages and increases the employes who are getting less than other employes in the same class, are going to feel little inducement to cooperate with the management.

7. *Publicity.*—A general appeal for the cooperation of everyone will help toward effective control. The average employe if appealed to in the right way, is more willing to cooperate than is sometimes realized.

The following example will serve as a good illustration of using publicity as a method of supervision.

One office manager was having considerable trouble with the problem of loud talking. In his weekly house organ which is distributed at the close of business each Saturday he published an article on the evils of loud talking in an office. In addition he had printed a series of six small cards each bearing an individual appeal to eliminate this habit.

On Monday morning when the employes came to work they found on their desks one of these card reminders. Each morning during that week they found a card, each one different in its wording, type, color of print, etc., and yet each one making the same appeal—the elimination of loud talking. On the bulletin boards, too, there was displayed a different reminder of the same thought.

Constant appeal over the period of the week cut down the loud talking to a point where it was negligible.

The same method has been successfully applied in meeting such problems as excessive lateness, unnecessary interruptions, untidy appearance of the office, etc.

8. *Fines.*—The levying of fines for tardiness, unsatisfactory work, etc., as a means of securing control is not to be considered a desirable procedure. Few office employes are earning more than is necessary for them to live on and they bitterly resent having the necessities of life taken away from them as a punishment for faults that are not generally vicious.

A fairer and less objectionable means is a system which makes errors or faults punishable thru restrictions upon future privileges which the individual would otherwise enjoy.

9. *Punctuality.*—The habit of lateness is one of those pernicious incidents that tend to break down discipline and rupture the smooth operation of an office. A well managed office will insist upon punctuality on the part of every one and where it is so insisted upon, it gives an effective stimulus by starting the day off right. In offices where punctuality is not insisted upon there tends to develop a free and easy spirit which is decidedly undesirable and which tends seriously to weaken control.

Whether lateness can be wholly removed is doubtful. In an office force there will always be some who have a tendency not to be at work at the appointed time. If a reasonable effort to correct this condition is unsuccessful the welfare of the office demands that such employes be removed.

Of course the department heads must first be sold on the idea of coming in on time. Unless it is possible to get the department heads to be punctual it will be only with the utmost difficulty, if at all, that the rank and file can be induced to arrive on time. The next step is to keep accurate records of attendance and check up every one who is late. In this way it is soon realized that lateness will not be tolerated. It may ultimately be necessary to let one or two people go. The employes will not feel that they are being treated unfairly if this procedure is followed, provided no exceptions to the rule of punctuality are tolerated.

At Strawbridge & Clothier's store in Philadelphia all tardy employes must go to the central desk and sign a slip. Since this plan was established lateness averages 2.5 per cent as against a former record of nearly 10 per cent. Bulletins regarding the matter of lateness are sent to the heads of each department. In offices where the flow of work is hindered by absences, special pains must be taken to secure prompt attendance. The man who is always on time properly feels the injustice of the situation if his work is constantly hampered by the dilatoriness of a fellow worker. Some firms give a substantial monthly bonus to employes who have been neither absent nor late during the month. Longer periods render the practice less effective.

10. *Absence.*—Absence is of bigger importance than is sometimes realized. Let the employer study this condition and he will discover that as high as 10 per cent of the working time is lost thru absence. With an annual pay-roll of many thousands of dollars, the direct money loss is of course considerable, but a greater loss is the resulting disorganization of the working forces and the consequent diminished output. In order to reduce the number of absences, the office manager must know the causes for absence. In the course of a year a hundred employes may easily be absent from an office an aggregate of 800 days

without causing any special comment. Yet a careful analysis of most of these causes of absence will indicate that most of the causes are preventable.

A certain percentage of employes always take advantage of lax discipline touching absences, without taking into consideration the injustice imposed upon their fellow workers. Hence, the employer owes it to his clerks as well as to the company to see to it that employes are not absent unless the absence is unavoidable. It is not possible to do this without an organized system of ascertaining the absences and controlling the absentees. A study should be made of the number and causes of absences with a view to finding and applying a suitable remedy. One employer who had a large percentage of men suffering from colds found it advantageous to employ an expert to study conditions of hygiene and ventilation, and a doctor to give treatments. The results were gratifying. When other offices were losing 10 per cent of their employes thru an epidemic of grippe, this firm had less than three per cent of its force so affected. In a Federal Government office where special efforts are made to maintain good working conditions, the average time lost was only 4.82 days for each of the 12,000 employes.

In an organization employing several hundred or more people the services of an attending physician will prove exceedingly helpful in reducing unnecessary absence. If employes who are or think they are ill, are required to see the company doctor before leaving the office and to see him again upon their return there will be little opportunity for taking off time to which they are not entitled. Furthermore a physician can accomplish a good deal in nipping illness in the bud and avoiding the spread of any disease in the office.

A great deal of unnecessary absence may be eliminated if it is possible to have someone visit the home of the absentee. Employes who are not ill will not care to be visited, but those who are really ill will be pleased at the interest that is displayed by the office, and at the same time the representative of the office may determine whether or not everything that should be done is being done.

11. *Personal supervision.*—Personal supervision on the part of the office manager plays a very important part in effective control. While it is true that in an office of any size it is not possible to rely upon personal supervision alone, at the same time it is an essential feature of control, no matter how large the office. Personal supervision enables the office manager not only to see that instructions are being carried out but also to inject into the work his spirit and his ideals. It enables him to overcome the tendency for employes to work in a mechanical disinterested way. By keeping in personal touch with his employes and the work they are doing he is in a better position to know what should be done to get satisfactory results.

12. *Delegation of supervision.*—In an organization

of any size it is not possible for one man to supervise everything without aid. It is therefore important to realize that supervision must be delegated to a department head or chief clerk, who should have jurisdiction over a group of employes doing the same type of work. It should be remembered that this individual is simply an aid to the office manager in extending effective control and should be directly responsible to the office manager. The chief clerk assumes such functions as supplying employes with work, seeing that they do not waste time and that they observe the established rule and procedure of the office.

In this way the office manager does not find it necessary to devote his energy to the details of supervision and at the same time does not weaken his control of these elements.

13. *Personal inspection.*—No matter how much attention is given to the written reports of subordinates dealing with the subject of control, the "master's eye" of the office manager cannot be spared. There may be oldtime managers who carry supervision too far, but they may still be held up as an example before those executives who are fond of sitting in their offices and doing nothing but push buttons, and those department heads who think that seclusion from employes means exclusion from details. Frank Gilbreth has said: "The most vital feature of any work is the maintenance of right relations between the employe and the employer. The neglect of the human element will make of the result no more than a half success."

The essence of successful inspection is found in an element of surprise. Employes can properly know that they are to be inspected; but the exact time should be unknown to them. The employe's attitude toward inspection changes when its purpose is found to be not merely to discover bad work, but also to discover good work, and when the result is praise for the good no less than censure for the bad. Even censure for bad work can be bestowed in such a way that it will appear as an aid toward improvement rather than as unqualified condemnation.

The practiced office manager does not go into great detail in his inspections. Often it is not known by employes that he is inspecting at all.

If he knows the work of the department under him, he need only look for what are called "symptomatic details"—infallible indexes that show whether things are going well or badly with an employe, just as certain symptoms enable the physician to determine the presence of health or disease in a patient.

14. *Delegation of inspection.*—Just as it is necessary to delegate supervision, it is necessary to delegate inspection in order that there may be a constant check on the quality of work being done. It is for this purpose that checkers are appointed to go over all material where accuracy is essential. In the handling of correspondence it has been found effective to appoint proofreaders whose work it is to read over letters to see that there are no errors of construction, spelling, punctuation and general appearance. It

has even been possible to develop proofreaders to a point where they can guard against mistakes in policy and subject matter. It must be understood that this delegation of inspection does not relieve the office manager of his responsibility for inspection since it is very easy for those to whom inspection is delegated to become careless.

15. *Complaints.*—Some firms go to much trouble to determine what errors are made in the office work and how often they are repeated. Such figures show in what cases special training is needed to eliminate errors.

A list may be made of the most frequent mistakes with remarks showing who made the mistake and how often it was repeated. Periodically a tabulation is compiled to show how many of these typical mistakes were made by each person and the total is brought to his attention. Such tabulation clearly shows who are the most proficient workers, and teaches the office manager what employes to select when some particular work has to be produced in a hurry.

Errors may be partly eliminated by merely being detected. Much better results are obtained when the careful worker is given a suitable reward. It is better to reward good work than to penalize poor.

In stenographic and typewriting work, typographical errors are penalized according to their gravity. A firm with much typewriting work uses a system which it has found very satisfactory. Errors are classified under four general heads: Spelling, punctuation, typographical mistakes and carelessness. Carelessness is divided into (a) omissions; (b) wrong file number; (c) wrong name, initials or address; (d) blotchy, unsatisfactory work; (e) poor set-up, irregular margins and poor arrangement on sheet. Each error is charged under its proper heading by means of the following initals: S—spelling; P—punctuation; T—typographical errors; C—carelessness. At the end of the day, the number of these mistakes per operator is added up. The total result is a good indication of the comparative performance of the operators. Suitable recognition is given to those who show proficiency.

16. *Reports.*—Reports properly designed are a very effective aid in office control because they give a knowledge of facts that would not be obtainable unless it were possible for the office manager to watch the work of every employe every minute of the day. These reports and their use constitute a subject in themselves and are discussed in the following chapter.

REVIEW

Contrast the discipline in the average American factory and office. Ought the same standards to be maintained in the office as in the factory?

In what respect do many inspectors err in their efforts to report office conduct?

What do you think of the "honor" principle of self-reporting among office employes?

Plan a system of merits and demerits which could be used in connection with this work in the office with which you are connected.

CHAPTER XVIII

WORK REPORTS AND THEIR USE

1. *Need for work reports.*—Just as soon as an organization grows to a point where it is no longer possible for the manager personally to supervise and control the operations of those under his jurisdiction, the need arises for establishing work reports. As a matter of fact, even in a very small organization certain reports are essential to proper management. But the need for a more or less extensive report system arises from the fact that even tho the manager in an organization of any size should not and cannot exercise personal control over every operation, he must know that these operations are proceeding satisfactorily. Work reports serve, too, in presenting to the manager facts instead of guess work. As soon as operations become at all complicated it is difficult, if not impossible, to form fair conclusions purely from observation. There is always the temptation to base one's conclusions upon the most recent observations, which may not reflect average conditions.

In addition, work reports serve to bring to light automatically conditions that require remedying or that indicate increased efficiency. Without work reports a long time might elapse before these conditions were realized.

2. *Types of work reports.*—There are various types of work reports and the need for them depends upon the particular conditions existing in the organization. Under certain conditions all the work reports described in this chapter are necessary. Suffice it to say at this point that if a report is really helpful to the management and if its preparation is not out of proportion to the value obtained from it, the use of the report is justified. Work reports concern themselves with quantity and quality of production. They classify themselves into reports on individual production, and departmental production. Their preparation may be daily, weekly, monthly or yearly, depending upon their use.

3. *Quantity production reports.*—By quantity production reports is meant such reports as record the quantity of any unit produced in a certain period of time. For instance, the production report of a transcribing department might show the number of letters typed or the number of lines typed by the department over a period of a week. If one week's report is compared with another week's report the comparison shows whether more work was produced or whether there has been a falling off. Comparing the reports of a number of weeks will indicate what the average output should be and will naturally suggest investigation when the output falls appreciably below the average. As a still further basis of comparison and in order to allow for variations because of the fact that the number of working hours is not always standard the produc-

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DICTAPHONE QUALITY REPORT

	WEEKS ENDING																	WEEKS ENDING																
	EMPLOYES	Read	Ret.	T	C	S	P	%	Remarks	Read	Ret.	T	C	S	P	%	Remarks	EMPLOYES	Read	Ret.	T	C	S	P	%	Remarks	Read	Ret.	T	C	S	P	%	Remarks
	TOTAL																	TOTAL																

tion report might show the average output per hour.

4. *Quality reports.*—Quality reports are not as readily obtainable as quantity reports. However, wherever it is possible to gather quality figures that mean anything, these reports are a valuable check against the ever-present tendency to sacrifice quality for speed.

In a transcribing department, for instance, it is possible to determine the number and kind of errors made by the typists. Percentages can be gathered on the basis of the number of pages returned for corrections during certain periods, and these percentages when compared show whether there is an improvement or not in the quality of the work done. The classifying of the errors under such headings as spelling, punctuation, grammatical and careless errors indicate along what lines the typists need to be developed. Another example of the use of a quality report is shown in the illustration on the two following pages, of a record used in checking the work of office boys. A report of this kind relieves the manager of the need for personally checking this work and at the same time he knows whether or not all of these activities are being carried out in a satisfactory manner.

5. *Principles underlying the use of reports.*—In the first place, there must be a definite purpose in mind governing the installation of any report. Then this report must be so devised that it really tells the story. Obviously the report must be accurate. Finally the report must be so devised that its operation is simple

OFFICE SERVICE DEPARTMENT

Daily Report of the Chief Clerk

For ______________ 191 .

The work of each Office Service Clerk is to be checked daily by the Chief Clerk of the Office Service Department.

This report is to be used as an aid in checking. As each item has been examined by the Chief Clerk, he is to check the item on the listed report thereby assuming responsibility for that item.

The report is to be placed on Mr.   desk each night before going home.

MORNING

Dusting	CHECKED	REMARKS
Condition of Furniture and Equipment		
" " desk pads		
" " ink wells		
" " pens		
" " pencils		
" " calendars (Wall and Desk)		
" " desk clocks		
" " ash trays		
" " dictaphones		
" " telephones		
Position of desk chair - guest chairs		
Opening of windows		
Turning on of fans		
All Flags Out (Special occasions only)		
Service Flag Out daily		
Cup Dispensers filled and clean		
Water Bottles filled		
Soapators filled		
Towel Machines supplied		
Alcohol Bottles filled		
Annunciators (all labels O.K.)		
Inter-Telephones		
Time going (Test by one stroke at 8 o'clock)		
Milk Bottle Boxes (emptied daily)		
Condition of rugs		

(Mimeographed Office Form)

OFFICE SERVICE DEPARTMENT (Continued)

	CHECKED	REMARKS
Writing shelf in cage		
Clocks (Desk and Wall) properly set		
Lights		
Bulletin Board memos changed		
Cylinder racks cleaned		
Dictaphones covered		
Telephone covers to Room 3		
Ventilation (all three floors)		
Mail Boxes (repaired and labeled)		
DURING DAY		
Reception Halls (check each time you pass thru		
Cup Dispensers filled		
Soapators filled		
Towel Machine supplied		
Boys' Room locked and clean		
Information signs properly changed		
Papers and clips on floor		
BEFORE GOING HOME		
All Flags in (on Special days)		
Service Flag in daily		
Telephone switchboard covers to operators		
Mail Bags to Post Office		
Information Signs changed		
Towel machines supplied		
Soapators filled		

Signed ____________________

(Mimeographed Office Form)

and that those who contribute to its preparation clearly understand the part they are expected to play.

There is no one report system that can be operated successfully in all organizations. Every concern has certain conditions that are peculiar to it and the report system must be fitted in to these peculiarities. There is a real danger in adopting without a proper test, the report systems of other concerns. The larger the office, the larger, also, as a rule, are the number of reports required, since personal supervision becomes more difficult. There is, however, a curious fascination in installing and elaborating "systems."

Before instituting any new report the manager should consider what information it will probably bring and just what use will be made of it. Furthermore, he must decide whether the information obtained will be worth the time spent in making out and interpreting the report.

6. *Definite purpose.*—The purpose of any report should be clearly defined before it is installed. It takes time to keep even the simplest report and unless this time is profitably spent the report is not justified. Furthermore, if the purpose of the report is clearly in mind there will be less difficulty in framing it to meet the needs for which it is intended.

In this connection it is well to realize that certain types of reports, while they may not be of vital importance to the management, are justified because of their moral effect. For instance, the work of certain clerks may not be of great importance and consequently there may be a temptation to feel it is not worth while having them make reports. But if these clerks realize that their work is not being watched carefully, they will probably do no more than a minimum amount of work. If they are required to render reports, however, they are led to believe that their work is watched from day to day and all that is necessary to confirm this impression is to check over the reports occasionally so that any tendency toward unsatisfactory work is checked up.

7. *Does the report tell the story?*—If the report is so framed that it can be interpreted only with considerable difficulty then it does not really tell the story. Reports should be so devised that only a minimum effort is required to interpret them. Unless this is done there is a constant tendency to put off using the reports with the result that their value as an aid in managing is lost.

Work reports which really "tell the story" should be readily subject to comparison. Only by comparison is it possible to understand clearly just what the report does show.

8. *Accuracy.*—Unless the report is accurate it is valueless. Every step, therefore, should be taken to avoid opening the way for inaccuracies. In devising a report provision should be made for checking from time to time the accuracy of the information presented. For instance, a departmental report should be based upon individual reports so that the figures presented

in the departmental report can be verified by checking over the individual reports. The individual reports should be so devised that "stuffing" or intentional inaccuracies are readily discernible.

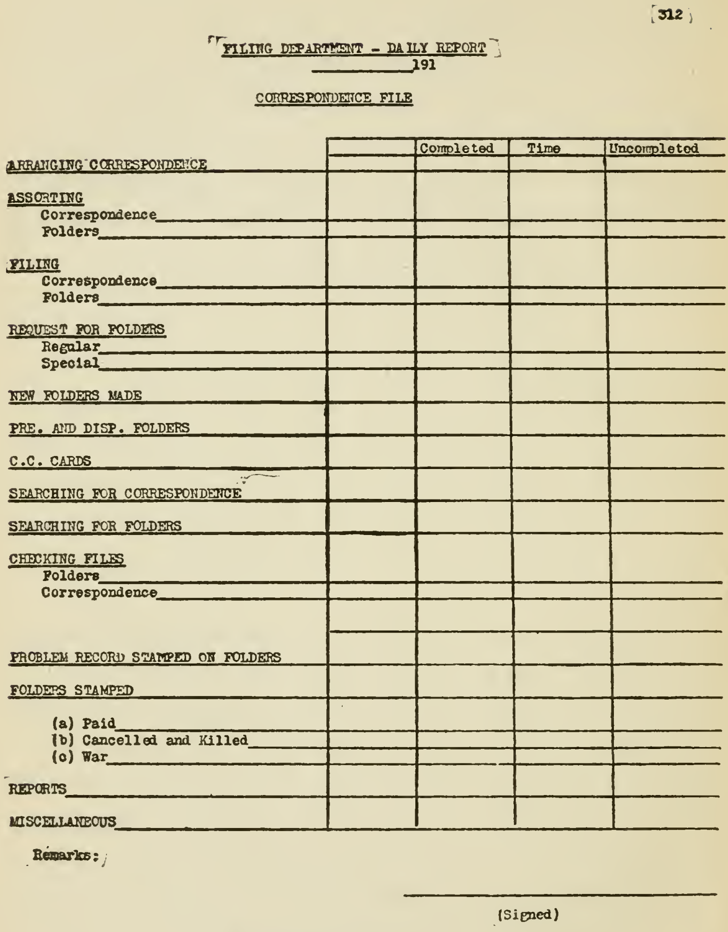
9. *Simplicity.*—Reports should be as simple as it is possible to make them. Elaborate reports are hard to prepare and difficult to interpret. Furthermore, elaborate reports are not readily explainable to those who are entrusted with the preparation of them. As a result of the lack of intelligent cooperation, the chance for error is appreciably increased.

10. *Daily reports.*—Daily reports are the basis for the preparation of all other reports. For this reason their preparation is exceedingly important. The extent of daily reports depends, as has been already pointed out, on the needs of the management.

If the nature of the work is such that it is possible to centralize the preparation of daily reports in the hands of one or more individuals, the results are usually more satisfactory. For instance, in a transcribing department it is entirely practical to have all of the letters pass thru the hands of one clerk who measures, for instance, the lines in each letter and credits the typists individually for the number of lines typed. At the close of the day these figures are totaled up to show the number of lines typed by each girl, and the total number of lines typed by the department.

In a department where a clerk is handling a variety of work it is not usually possible to centralize the preparation of reports. In such cases the individual must keep his own reports and the best method of doing this is to have him keep a running record of the way in which his time is spent. The back of an individual report sheet provides space for entering the work as it is handled. For instance, if a clerk assorts papers from 8:45 to 10:30 she would fill in the "assorting" column the quantity assorted. Then, if she files from 10:30 to 12:30 she would enter this in the same way. At the close of the day on the front of the report sheet she would summarize in the spaces provided, how she had spent her day. The accuracy of such a report can be readily checked by casually looking over her report some time during the day to see if it is really being kept. Any tendency to "pad" the report can be discovered by checking out variations in the quantity of similar types of work handled in similar periods.

The departmental daily report which follows is simply a combination of all the individual reports submitted by the members of the department. From the standpoint of the office manager the departmental report is the important thing. Ordinarily the daily departmental report is not studied by the office manager so much from the standpoint of production as from the standpoint of uncompleted work, for the day is too short a period to indicate tendencies. But the daily report gives the office manager a chance to watch daily any items that are particularly important or in which he may be particularly interested. It also



[312]

FILING DEPARTMENT - DAILY REPORT

____________191

CORRESPONDENCE FILE

		Completed	Time	Uncompleted
ARRANGING CORRESPONDENCE				
ASSORTING				
Correspondence				
Folders				
FILING				
Correspondence				
Folders				
REQUEST FOR FOLDERS				
Regular				
Special				
NEW FOLDERS MADE				
PRE. AND DISP. FOLDERS				
C.C. CARDS				
SEARCHING FOR CORRESPONDENCE				
SEARCHING FOR FOLDERS				
CHECKING FILES				
Folders				
Correspondence				
PROBLEM RECORD STAMPED ON FOLDERS				
FOLDERS STAMPED				
(a) Paid				
(b) Cancelled and Killed				
(c) War				
REPORTS				
MISCELLANEOUS				

Remarks:

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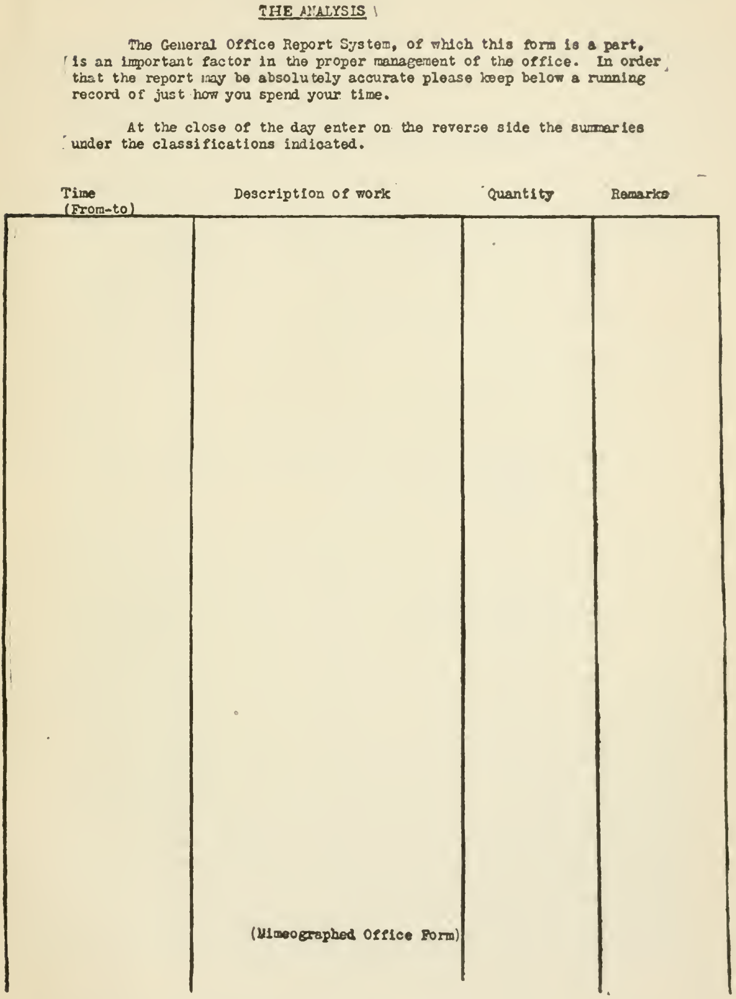
(Mimeographed Office Form)



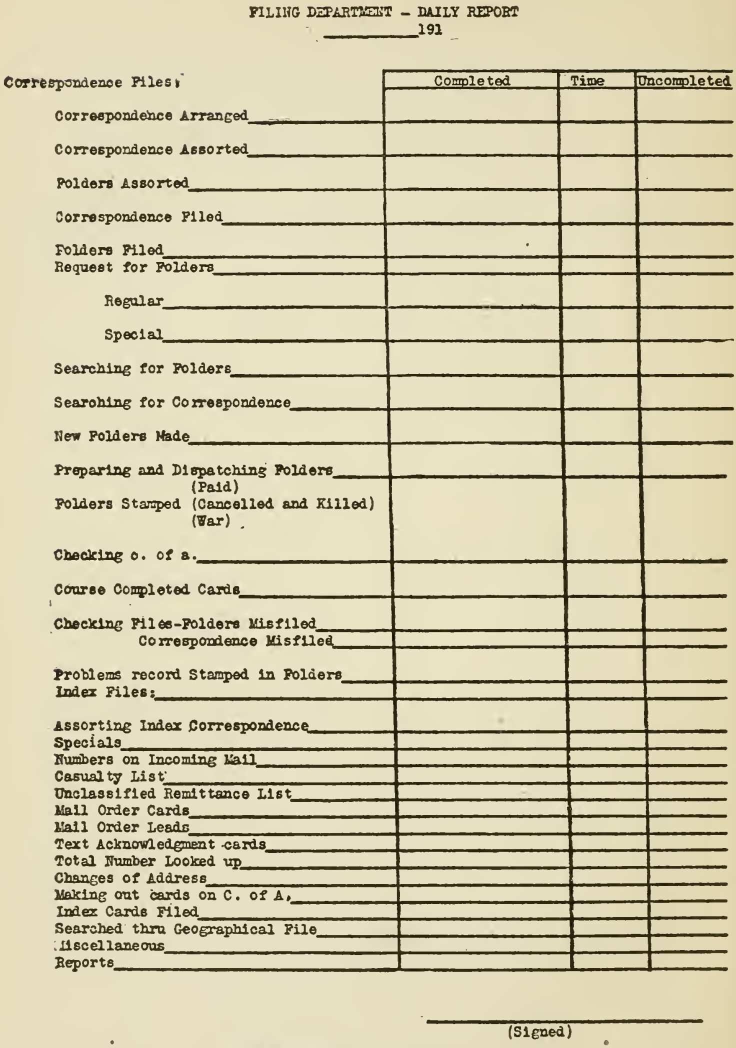
THE ANALYSIS

The General Office Report System, of which this form is a part, is an important factor in the proper management of the office. In order that the report may be absolutely accurate please keep below a running record of just how you spend your time.

At the close of the day enter on the reverse side the summaries under the classifications indicated.

Time (From-to)	Description of work	Quantity	Remarks

(Mimeographed Office Form)



FILING DEPARTMENT - DAILY REPORT

__________191_

Correspondence Files:	Completed	Time	Uncompleted
Correspondence Arranged			
Correspondence Assorted			
Folders Assorted			
Correspondence Filed			
Folders Filed			
Request for Folders			
Regular			
Special			
Searching for Folders			
Searching for Correspondence			
New Folders Made			
Preparing and Dispatching Folders			
(Paid) Folders Stamped (Cancelled and Killed) (War)			
Checking c. of a.			
Course Completed Cards			
Checking Files-Folders Misfiled			
Correspondence Misfiled			
Problems record Stamped in Folders			
Index Files:			
Assorting Index Correspondence			
Specials			
Numbers on Incoming Mail			
Casualty List			
Unclassified Remittance List			
Mail Order Cards			
Mail Order Leads			
Text Acknowledgment cards			
Total Number Looked up			
Changes of Address			
Making out cards on C. of A.			
Index Cards Filed			
Searched thru Geographical File			
Miscellaneous			
Reports			

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(Signed)

(Mimeographed Office Form)

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Dept. Report

	Weeks Ending													Weeks Ending												
		Output	Average per Day	Remarks	Output	Average per Day	Remarks	Output	Average per Day	Remarks	Output	Average per Day	Remarks		Output	Average per Day	Remarks	Output	Average per Day	Remarks	Output	Average per Day	Remarks	Output	Average per Day	Remarks

furnishes an accurate basis for the preparation of weekly and monthly reports.

11. *Weekly reports.*—Weekly reports like daily reports may reflect the output of individuals, or of departments. A week furnishes a good basis for making comparisons and is a short enough period to enable the office manager to keep in close touch with what is going on. Comparisons over a period of six or eight weeks furnish a splendid guide in the management of individuals and departments.

12. *Monthly reports.*—In order to get a clear conception of whether work is increasing or decreasing and in order to get a still clearer picture of conditions, monthly reports are a valuable addition to the report system. They may report the same items as those shown in the weekly reports or they may be confined to the more vital items. In studying monthly reports it is important to make proper allowances for holidays and for variations in the lengths of months.

The value of monthly reports is enhanced if in addition to the current month's output is shown the increase or decrease in production over the previous month, the increasing total for the fiscal year, to date, and the increase or decrease over the previous fiscal year.

13. *Use of reports.*—A proper system of reports enables the office manager to determine the efficiency of operations, to put his finger on weak spots, to measure tendencies and to gain a basis for constructive decisions.

14. *Work reports—a measure of efficiency of operations.*—The wide awake business executive of today is not satisfied with optimistic statements from his assistants that "everything is moving along nicely." Instead he is constantly striving to know "What are the facts?"

A proper system of reports furnishes "the facts" in the operation of departments. If a new machine is introduced it shows him the extent of the saving effected. If a new plan is introduced to increase the output of individuals he is able to measure to just what extent the plan is successful.

15. *Work reports—an indication of weak spots.*—The daily departmental work reports should indicate the exact amount of material left over at the close of the previous day. This information indicates what departments need help and also may serve to indicate that there is a condition calling for a remedy.

Adequate work reports will instantly bring to light the failure to get capacity production from any equipment. Theoretically the transfer of an employe from one type of work to another may be entirely satisfactory. Work reports will prove whether or not the employe is really qualified to perform the new work. It has already been said that one of the most valuable features of a good system of work reports lies in the fact that it serves as an indication of conditions that need remedying.

16. *Work reports—a measure of tendencies.*—Unless the office manager knows definitely to what ex-

tent the incoming work handled under his jurisdiction is increasing or decreasing, he is not in a position to eliminate successfully any clogging that may result from increasing work or to reduce expenses due to decreasing work. It may be possible to tell by inspection whether work is increasing or decreasing but without a proper system of reports there is no way of gauging whether the increase or decrease is merely a temporary fluctuation or whether it is a definite movement.

17. *Work reports—a basis for decisions.*—A proper system of reports furnishes a splendid basis for constructive decisions. For instance, the exact time when it pays to instal office machinery is determined by the volume of work of a certain class to be done each day or week. For example, it will be profitable to fold papers by hand until there is a sufficient quantity of this work to make it more profitable to invest in a folding machine. At this point the cost of the machine will be repaid by the time saved. If there are no figures obtainable the wisdom of installing a machine of this kind may not be realized, and even tho it is realized, without the reports it may be difficult to secure approval for its purchase.

The interpretation of office reports frequently leads to redistributions of the personnel or to additions being made in the force. Ordinarily, for instance, stenographers type their own envelops and make their own inclosures. As the work increases, however, it may be clear from the reports that it would be more profitable to centralize the work of typing envelops and making inclosures in the hands of one or two girls whose salaries are considerably less than those of the stenographers.

18. *Statistical department.*—In some large offices a special statistical department is maintained for the purpose of converting office reports into statements that show tendencies, unit costs and other facts for the guidance of the executive committee in determining the policies of the concern. In one office, for instance, daily reports are made out by each employe and presented to the chief clerk of his department who compiles weekly departmental reports for the office manager. The latter prepares monthly summary reports for the statistical department which, in turn, issues monthly reports, further summarized and elaborated, for the information and guidance of the directors.

The statistical department is charged with the responsibility of compiling all records, other than those of a purely financial nature, relating to the operation of the business.

19. *Monthly information report.*—Department heads ought to cooperate intelligently in the management of their departments. Realizing this, some organizations have requested their statistical or accounting departments to prepare and send out a monthly "Information Report."

This report tells the amount of orders taken, the amount of orders filled, the production in essential items, the amount of money collected, etc., so that the department head has a good basis of judging the trend of the business and the part that his department is playing.

REVIEW

What is meant by the following terms: quantity reports, quality reports, time reports and comparative reports?

Many executives place too much emphasis upon reports. What should determine the number and kind of reports that can be used to advantage?

What reports would you, as office manager, require from your transcribing department?

What are the features of a good report?

CHAPTER XIX

THE ART OF MANAGEMENT

1. *The object of management.*—The test of good management of an organization is the attainment of maximum business success. By business success we mean profit. Consistent with its effort to secure business profits, an enterprise strives to render acceptable service to the public and to treat its employes according to the principle of the golden rule. A business enterprise serves the public faithfully and observes toward its employes the golden rule both as means of profits and as ends in themselves. Good office management also involves doing with a minimum of outlay the clerical work delegated to the office force.

2. *A single controlling authority.*—We have seen that efficiency in an organization can be secured only when there is a central, directing will and a subordination of the entire organization to that will. The policies of management adopted by an enterprise control its chief executive. He in turn is the fountain-head from which authority descends down the line thru all the subordinate heads in regular order. Back over the same line goes the ascent of appeal from authority until it reaches the president himself. Each subordinate in turn, within his limited field, is an independ-

ent executive in the fulfillment of the task assigned to him in the general plan. He assumes responsibility for results; and he must be given corresponding authority over the subordinates for whom he is responsible.

3. *Assignment of tasks.*—The purpose of this fundamental principle of administration is cooperation and coordination; its execution is mainly a matter of discipline. In coordinating the units of a large organization with many divisions and subdivisions, it is frequently necessary to examine the tasks and the authority assigned to each unit. This detail is conveniently carried in an organization record, and standardized instructions. We have already seen that in distributing tasks it is important not to assign to the individual either too little or too much, lest we lose in either economy or efficiency.

When because of his lack of capacity or character the work of a subordinate falls below expectations, the remedy is not found in interference by a superior or in the latter's assumption of the badly done work. On the contrary, the remedy lies in improving or removing the subordinate. Where there is any reasonable prospect of removing inefficiency, a method of instruction should be tried; but for real incapacity, for disobedience or disloyalty, there is no alternative but discharge. In this connection it should be pointed out that incapacity is frequently due to an unwise assignment of the individual to work for which he is not fitted. Partly upon this fact is based that innovation in business which we call the employment department. Often this department is able to transfer an unsatisfactory individual to a place where he or she can render high service.

4. *Initiative for subordinates.*—In any proper system of management there must be a large measure of initiative and discretion left to division heads. In the conduct of any branch of a business, there will inevitably arise problems and conditions which could not have been foreseen. Subordinates should be allowed to work out their own solutions of such problems without any avoidable help from their superiors. Unless initiative and discretion are thus left with subordinates, the executive will be overwhelmed with details and hindered in the exercise of his true functions: supervision and the determination of policies.

When junior executives know that they are being held responsible for results and are free to determine methods, there arises a very healthy sense of rivalry among them, of loyalty to the institution, and of their importance in it. Of course, it is equally true that all subordinates must strictly adhere to the fixed rules laid down for their guidance, as in the office manual. The area of discretion lies in emergencies or other situations for which, in the nature of things, no rigid rules can be made.

There will be times when the administrator or executive must step in and assume control within a subordinate's sphere af action. But, in general, the executive should keep his hands off and allow subordinates considerable scope within the limits of loyalty to the policies of the enterprise.

5. *Supervision.*—Supervision and inspection are essential to successful management. They stimulate activity and prevent any lapse from established principles of economy and efficiency going unnoticed. They keep the object of the administration always before the organization members and give a manager the opportunity to make comparisons which inspire him to improvements in methods and changes in his standards of performance.

The most obvious form of supervision is personal inspection of workers and work by the manager. If such regular inspection is to carry out its purpose, however, it presupposes a manager who is intimately acquainted with the technicalities of the work which he supervises. Especially is this true in office management. Such supervision is, of course, supplemented by conferences with heads of divisions, periodical reports from them, comparative statistical studies of the office work and of the work of corresponding organizations in other enterprises.

6. *The qualities of management.*—So many perfect "systems" fail in practice that where trouble occurs in an enterprise, or in any branch of it, the fault is more frequently with the management than with the organization. There are certain underlying qualities without which a man cannot be a successful administrator. The qualities are shown in his conduct toward subordinates, in the way he performs his duties

of inspection and discipline, and in the degree of consistency which he exhibits in his treatment of others.

7. *Formalities of authority.*—The creation of respect for a superior's authority can be aided by artificial means. It is not just a vain show that in the military world there is a distinction between officers and privates. Salutes are prescribed, and there is difficulty of access except upon prescribed business. In military life the observance of these prescribed forms tends to create a sense of discipline and respect for authority—a very necessary thing.

The business world is more democratic and there is less demand for ceremony in the relations of subordinates and superiors; yet certain distinctions between them are made, not only in the matter of salary, but also in the matter of working hours, working equipment (such as better desks, private rooms) and longer vacations. These distinctions are by no means without their effect upon discipline and authority within the organization.

8. *The manager.*—It is chiefly by his own exhibited qualities, however, that a man must create in his subordinates the feeling that he is a superior to whom they owe obedience. To this end he needs certain qualities of temperament, such as patience and self-control; certain qualities of mind, such as persistency, self-reliance and a sense of justice; and certain habits of conduct, which include dignity and reserve of bearing. It is necessary for a man in charge of other men to keep his own counsel sufficiently so that his doings

and deliberations are not unnecessarily exposed to their view. He needs their views and suggestions, yet these can be obtained without giving the impression that he is in any sense dependent upon them. They should rather be made to feel that they are privileged to share in the counsel and confidence of their superior.

There should be a reserve in the promises of a manager toward his subordinates, particularly upon their assuming a new position. It is easy to make sweeping promises to right everything and settle all difficulties. Such promises cannot usually be redeemed. It is better to promise less and deliver more. Indefinite promises are not infrequent in politics, and they persist because the electorate does not check up very carefully the performance of the chosen candidate. This is not so with a manager and his men. Big promises and small deeds on the manager's part breed discontent, disrespect and insubordination among his employes.

9. *Impersonal discipline.*—In the administration of discipline, the manager must be wholly impersonal. That is the only proper attitude, and it also serves to take the sting out of discipline, the sting which is felt as a personal visitation or persecution. Most men who have done wrong realize the fact and see the justice of being made to pay for it. It must always be kept in mind that the purpose of discipline is to prevent repetition of the offense, and to implant in the mind of the disciplined employe, and of others, the

conviction that unpleasant results will inevitably follow if the company's rules are transgressed. Since the main purpose of punitive measures is to affect future action, it is sometimes preferable to warn and forgive rather than to discipline. But so long as human nature remains as it is, a major spur to efficiency is fear of discipline and discharge, and the manager who is unwilling to let his employes realize that these events are very real possibilities, is lacking an essential quality of the administrator.

Some of the rules and regulations which the manager is called upon to enforce are laid down by the corporation officials above him. Some of them the manager himself promulgates. The manager who enforces them must regard them as being wholly impersonal. Therefore, there is no place for anger or impatience in dealing with subordinates, for anger is a personal affair. It is sometimes difficult to restrain a feeling and an expression of indignation, but it is well to let that feeling cool off before taking action. It is always easier to maintain law and order when men regard the law as a friendly guide than when they look upon it as an expression of force.

10. *Attitude toward inspection.*—Inspection can be carried out with the purpose of discovering faults and punishing them, or it can be carried out with the view to discovering what work is well done, bestowing praise upon the well-doer, and making constructive suggestions for improvement. The attitude of the employes who are inspected is affected by the spirit

that animates the inspector. In one case there will be at least a passive resistance and antagonism to the inspector. In other cases, those who are inspected recognize in the inspector a guide, helper and friend. We get more out of people by believing in them than by distrusting them. "More things are wrought by faith than this world dreams of." If the inspector takes the larger view of the opportunity afforded by inspection, he will attain a strategical position that will enable him, without meeting resentment, to perform those unpleasant duties that sometimes fall to him.

11. *The quality of consistency.*—Consistency is necessary in the policy and acts of the executive. Respect for the position and authority of a superior depends largely upon the certainty with which we can count upon the rewards and penalties of conduct. Rules and regulations mean nothing unless consistently administered. Progress and development are bound to result from a consistent policy. It furnishes a sound basis upon which every subordinate can build his plan of action. It is seldom that there is a complaint of the severity of discipline; complaints, when analyzed, generally refer to its irregularity or partiality. Give every one an opportunity to know what he may expect tomorrow, next week, next month, and he will adapt himself happily to the conditions.

12. *The creation of an esprit de corps.*—The elements that go to make up successful management are not all contained in the manager himself. One of the strongest of the extraneous forces is what we call *es-*

prit de corps. It is a moral force that resides in the whole working body of an organization, and springs from fundamental instincts of human nature. Anthropologists tell us the man is a social animal. That means that he possesses not merely the instincts of the lower animals—those of self-nourishment, self-protection, self-perpetuation—but also the instincts of cooperation—a desire and a need to associate himself with his fellow beings in enterprise, to merge his individual welfare into the greater welfare of the whole. He may satisfy this instinct in different ways. He finds satisfaction in loyalty to a religion. He finds satisfaction in patriotism. He finds satisfaction in loyalty to his friends and fidelity to his wife. Of the same nature is that loyalty to a business organization which we call the *esprit de corps* of an enterprise.

Esprit de corps, then, springs from a desire to cooperate with one's fellow men. If it is to be developed, opportunity to cooperate must be given. But if subordinates are to feel that they are really cooperating, they must be made to realize that their good work is wholly necessary to the welfare of the enterprise. They can be made to feel this by a proper appreciation of their every-day work and by being given opportunity to cooperate in shaping the methods and even the policy of the concern.

13. *Suggestion systems.*—The majority of improvements in industry and business spring from the inventions of subordinates in the course of their work.

It is not otherwise with office methods and machinery. Many large offices have carefully worked out suggestion systems for stimulating employes to think along these lines. An important effect of the suggestion system is that it enlists the constructive thinking of the office force upon the side of the office manager, in addition to serving as a basis for the creation of *esprit de corps,* or enterprise-loyalty, by satisfying the desire for effective cooperation in a common cause.

14. *Appreciation of service of subordinates.*—Yet *esprit de corps* is not nourished merely by the satisfaction of this instinct of cooperation. It requires appreciation of efforts rendered. This appreciation can be evidenced by a superior's kindly interest in the welfare of his employes, by pleasant working conditions and fair working hours and by suitable remuneration. Loyal service infused with *esprit de corps* invariably results in the performance of more work or of better work; hence, in greater profits for the employer. Principles of justice require that a fair percentage of these profits should be shared with the employes who produce them.

Even if loyal service resulted in no pecuniary profits, subordinates could still be induced to develop an *esprit de corps,* for men prefer to do work well rather than poorly. But when this results in obvious advantage to the enterprise, the subordinate's sense of justice is offended if he does not share in that advantage. A blot upon the history of management in American business has been the practice of speeding up subordinates and pocketing all the profits. Workers may be speeded up either by means of scientific management or by the development of an *esprit de corps.* But to exploit this *esprit de corps* for the purpose of gain by the enterprise alone is to abuse one of the finest qualities of human nature. Under such conditions, *esprit de corps,* which normally would result in loyalty to the enterprise, will be diverted into the channels of unionism, or loyalty to the interests of the employes against those of the enterprise.

15. *Democracy and management.*—It must be confessed that many of the principles of management, with their insistence upon authority on the one hand and obedience on the other, have a somewhat military flavor. It will readily be understood that their application in the democratic age in which we live is surrounded with difficulties. Cooperation and consent must take the place of command and fulfillment. In seeking the highest efficiency in his organization, the manager cannot disregard the spirit of the times. While the supreme authority is, of course, essential it must be one to which there is willing submission. That is why it is important that the road of advancement be held open to all subordinates in an organization and that the organization work for them, as well as they for the organization. If they are made to share in its official positions in proportion to their ability, and to share in its profits in proportion to their performance, it will be for them a benevolent autocracy.

16. *Committee System.*—There was a time when committees appointed by the management appeared to be the easiest means of solving administrative problems. As a result many offices became overburdened with committees of purely nominal authority and there can be little doubt that in office management there has been a decided reaction in this regard.

In the industrial world managers are indeed turning to committee systems in a spirit of great hopefulness. Such committees promise to make needs and wishes of the workers known to the management and to give a means of discussion which will act at once as a safety valve and as a basis for better understanding.

But conditions in factory and office are scarcely parallel. In the latter it is rare to find large numbers of employes doing exactly the same type of work and deprived of any means of contact with the officials. Committees are here discussed, therefore, not in relation to any "labor problem" but only with reference to their usefulness as an adjunct to office management.

17. *Their main value.*—The main value of a committee is that it acts in an advisory capacity for the officer under whose auspices it sits. It can offer suggestions and aid in the formation or criticism of policies. The committee's value in the discussion of policies is great, especially in matters relating to discipline and routine. The committee meetings promote the business education of all those who attend. They stimulate the ability of the members to express themselves and to understand the other man's point of view.

Committee meetings bring together at frequent intervals persons whose work must be correlated. The dangers to be guarded against with regard to committee meetings are that there may be too many of them and that they may be conducted without any plan. A minor executive may be a member of so many committees that the greater part of his time is spent in attending such advisory meetings.

In order that committee meetings may not resolve themselves into mere occasions for conversation on any number of subjects, a plan for each meeting should be drawn up by the chairman, and the plan sent to committee members previous to the meeting. They will thus have an opportunity to prepare what they have to say upon the subject under discussion. The chairman should hold the meeting to a discussion of these subjects in their regular order. The meeting should be reported and reports sent to each of those who were present, so that they may indicate corrections or note further suggestions which the report may bring to them.

18. *Superfluous orders.*—Every one who has been in a subordinate position knows how burdensome an inopportune or superfluous order can be, and how strong is the impulse to revolt. There must be no trace of domineering, no attempt to give orders merely for the purpose of magnifying one's own importance. Orders, like discipline, are impersonal; they should be issued and executed on behalf of the enterprise. Unnecessary orders kill initiative.

19. *Obligations of subordinates.*—Of course it is not to be supposed that the success of an enterprise depends solely upon the qualities of the office manager. The obligation is not all in one direction. The employe, on his part, is under obligation to act with loyalty and promptness; to do as well as he can the things entrusted to him. Initiative, imagination and willingness to put one's shoulder to the wheel are qualities that cannot escape the attention of superiors.

Efficiency is no accidental attainment. It is gotten by constant attention to tasks, by daily doing the job a little better than it was done yesterday. It means working for one's employer with the same loyalty that one exhibits toward one's own business. Each man should make his immediate superior feel that, once he has given him an order, he can dismiss the matter from his mind with the certainty that the task will be done within the time assigned. There is no humiliation in the subordination of one's will to that of a superior. It is a mark of fitness to live in a cooperative society, just as it is a mark of fitness, later, to command. Since executives *must* find relief from the burden of details, they seek and reward subordinates capable of developing initiative and willing to assume responsibility.

In this chapter much has been said about the "executive," "the administrator," "the manager." The principles of management, however, apply with equal force to all who direct the work of others; hence, to every department manager and every senior clerk, who by their aid can fit themselves for promotion to administrative work of a higher order.

REVIEW

Many systems of management, elaborately developed and carefully tested, have been installed in offices and failed in results. Where would you look for the fault?

What is meant by leaving an "area of discretion" to the subordinate?

When a new employe enters the office he wants to know what is ahead of him. What should guide a superior officer in making predictions for the future?

What plan may be adopted to get the most out of committee meetings?

What qualities should be possessed by an office manager? What is the most important of all if he would be successful?

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